CHOICE IN DIGITAL GAMES: A TAXONOMY OF CHOICE TYPES
APPLIED TO PLAYER AGENCY AND IDENTITY

by

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For Alli, for all we’ve done and all that’s to come
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Choice has always played an important part in video games, but its role in recent times has become complicated. As technology has grown more efficient, once narrow game genres have expanded and hybridized. Action games such as platformers have adopted complex statistical systems for players to manipulate, first-person-perspective games that were once primarily shooters have gained complex stories with multiple narrative paths, and some games have even pushed into the realm of interactive cinema experiences. With such rich variation, the current manner in which academia and the development industry discusses choice is too broad. It is thus my goal in this research to create a taxonomic categorization of choice types in video games, as well as to demonstrate application of the taxonomy as it pertains to agency and player identity in gaming experiences.

I believe that, as engineered objects, games must be viewed as objects of representation and simulation by observers and creators alike. Through interpretation and reduction of real-world analogues, designers create and implement in-game systems of varying fidelity to provide choices to players. The consequences in games that lead to feelings of agency and identity are
likewise designed just as the choices that lead to them. This research will demonstrate these principles of choice and consequence by drawing examples from games across five decades of game development and critically analyzing them. I will present a taxonomy of choice types derived from these observations and relate it to agency and identity in game experiences. Finally, I will apply the taxonomy to three case studies weighing Heavy Rain against The Last of Us, The Elder Scrolls V: Skyrim against Dark Souls, and Shadow of the Colossus against The Stanley Parable. The case studies will deal with choice as it relates to agency, choice as it relates to identity, and the subversion of player choice as a major narrative technique respectively. It is ultimately the goal of this research to provide a template that better illustrates not only the types of choice available in video games, but how the relationship between the different types can impact player experience.
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Choice as a concept is a defining characteristic of human behavior and self-image. Freedom occupies human thought and behavior constantly—the freedom to eat, to speak, to create, to act. The freedom to choose precedes all other action. I must choose to engage in creating before I begin, and then subsequently I choose how to create. Media depictions of story and character necessarily show us the process of other people choosing how to act, or at least the illusion of choice. An action hero on the movie screen appears to choose to fight or run from his enemies, but in every viewing of such a film, the hero will make the same choice every time. The media object is an artifact locked in the time of its creations that depicts the illusion of choice, perhaps even serving the viewer’s projection of choices she might wish to make. Even more dynamic performance such as a play or symphony creates a divide between audience and performer (though there are exceptions), especially during the performance itself. In video games, the act of playing and exercising choice is part of the object—part of the performance—itself.

The capacity to choose a course of action sets video games apart from most forms of traditional media. Author of *Hamlet on the Holodeck* Janet Murray points out that “just as the primary representational property of the movie camera and projector is the photographic rendering of action over time, the primary representational property of the computer is the codified rendering of responsive behaviors” (74). Films, novels, and music all create spaces of observation and experience for the audience, but ultimately, outside of some experimental cases, only allow one direct, binary form of interaction: engage or do not engage. A computer, by contrast, responds to user input based on the purpose of its system. Video games—games that happen within and are governed by the confines of a computer system—by extension provide
scenarios that respond to player input, thus expanding the possibilities of player experience and even providing for experiences unintended by the developer. Key in Murray’s description is the word ‘codified’ which expresses that the responses to player choice are systemic, engineered outcomes in a game’s code that react to equally engineered inputs. Choice exists within the system, impacts the system, and thus creates new system states in which players can act.

In his book *A Theory of Fun for Game Design*, game designer Raph Koster says that “when we describe a game, we almost never do so in terms of the formal abstract system alone—we describe it in terms of the overall experience” (162). In this view, the formal systems of the game—the math and algorithms that drive everything players see on the screen—simply create the aggregate experience. Koster’s statement, however, is sweepingly broad, and even his subsequent discussion of the topic leaves room for expansion. He likens the creation of a video game to a production of the ballet *Swan Lake*, rightly pointing out that there are many factors contributing to the production—lighting, choreography, costuming, etc.—but that no one of those things is the spirit of the “dance,” which he emphasizes to indicate the whole experience of the presentation. Using a hypothetical film to further his stance, he says that “the very fact that the art of the film fails if *any* of its constituent arts fail elevates each and every one to primacy” (168).

Though his arguments mean to inspire readers to take all parts of game development seriously, Koster inadvertently illuminates another problem: every constituent system that makes up the experience of the video game represents different types of interactions that require different approaches from players. In *Swan Lake*, all of the individual pieces remain on stage, distanced from the audience and controlled by the professionals putting on the production. In a
video game, the audience is invited directly onto the stage to toy with whatever element the system allows. Such systemic affordances, however, can span from an action as simple as moving Mario to the right of the screen in *Super Mario Bros.* to an overarching narrative choice to make the world of *Dishonored* more chaotic through multiple violent actions. Video games offer a broad array of choice types, some of which bring formal systems to the forefront of play in opposition to Koster’s view.

Koster is not alone in oversimplifying the mechanisms of choice in games. Many long-time industry veterans such as Shigeru Miyamoto, Ken Levine, David Cage, and Yuji Horii—all of whom have focused on player empowerment and control in their works—cavalierly discuss choice as an all-encompassing idea, yet it is an idea with ill-defined edges. Designer Warren Spector, who has held lead creative positions in the development of series such as *Ultima* and *Deus Ex* that are known for allowing player freedom, even authored an essay entitled *Another Narrative Fallacy: Games are About Choice* in which he treats choice solely as a narrative decision. Choice, in this mode of thinking, is the resultant experience of a player taking an action and feeling as though the action has impact on the consequences, which additionally conflates choice with the resultant sense of agency. Academic texts similarly look at choice with a focus on player experience. Eric Zimmerman and Katie Salen’s *Rules of Play* offers a breakdown of the elements of choice primarily focused on the player’s feeling of impact—another conflation with agency. Both the industry and academic perspectives take for granted that choice is the means of engagement in video games and fail to acknowledge that there are different types of choices that each requires different delivery methods by developers.
Proper classification begins with the understanding that video games are engineered experiences that, as they increase in complexity, contain situations increasingly representative of real life scenarios. The notion that simulations, and thereby video game systems, are representations is powerful, but treating video games solely as simulations is problematic. Much like the breadth of discussion surrounding choice in games, there is a large gulf between referring to *Microsoft Flight Simulator* as a simulation and *The Legend of Zelda* as simulation. The former replicates real-world flight conditions to the point of providing a competent flight training experience, whereas the latter involves moving across a fantasy land collecting cause-and-effect items such as candles and bombs whose in-game effects often bear little resemblance to real-world counterparts. Further complicating the matter of simulations is the fact that *Microsoft Flight Simulator*, along with games such as *SimCity*, collectively fall under an entire genre of referred to as ‘simulation’ that caters to a specific market of players. While this issue of terminology may seem semantic, there are distinct practical and philosophical differences between accurately recreating real-world situations and representing them to effect a particular player experience. Part of my research will concretely define a difference between simulation and representation as a foundation upon which to examine how games deliver choice to players.

Such a foundation recontextualizes how developers create the feeling of choice. If games are representations of a fictional reality, then the choices they offer are also representations of choice. Developers implement every choice structure into the game by planning and coding out methods of input and potential responses for players to receive. This process is inorganic in that any scenario becomes an interpretation of how an imaginary choice might work. Designers and programmers must then construct the interpretation in the game in a fashion that appears
believable to players. The consistency of the final product, per Koster’s argument regarding experience, serves to elicit different thoughts and feelings from players. Since not all feelings are equal in effect or source, though, it stands to reason that different avenues of choice lead players toward different responses. The choices *The Legend of Zelda* offers to create a sense of exploration are necessarily different than those that allow *Mass Effect 3* to evoke sadness at the tragic, yet heroic loss of the player’s long-time companion Mordin. Likewise, since games are representations rather than simulations, the way *The Legend of Zelda* provides a sense of exploration is different from that of investigating a real-world forest or mountain.

To carry out this research regarding the implementation and effects of choice in video games, I will be evaluating media objects that are commercially viewed as ‘video games.’ The goal of my work is to broadly analyze the types of choice video games offer to players, and a wide pool of material better serves that end. Notably, in chapter two I will bring up specific definitions of what games are, but only in the context of illustrating industry and academic views—it is outside the scope of my work to argue specifically what a game is. To begin my research, I will examine definitions of simulation across multiple fields to firmly establish video games as objects that lie on a spectrum of simulation and representation. With that foundation laid, I will shift to a critical analysis of the types of choice games offer. These games will span multiple genres and eras of video game development, stretching from modern creations to the earliest commercially successful games. From the examples I collect in my analysis, I will construct a hierarchical taxonomy of choice types in video games. This classification will account for and detail both mechanical and narrative interaction in games, and its hierarchical
nature will provide a framework for understanding how to maintain (or deliberately subvert) the consistency of a game experience.

In order to verify the usefulness of this taxonomy of choice, I will examine how it relates to player agency and identity in a game world. This research will show how the types of choice offered within a game serve to set up expectations for subsequent choice options. Players then internalize these options as endemic to the representative experience the game provides and anticipate that their role as agents in the game world will afford them consistently similar options as they move forward with play. After individually analyzing agency and identity as they relate to the taxonomy of choice, I will provide three case studies to evaluate how games with similar themes create different experiences through leveraging different choice types. The first study will involve allowing players to develop their identities in the open world adventures of *Skyrim* and *Dark Souls*. The second study will look at the restrictions, both illusory and real, of narrative agency in *Heavy Rain* and *The Last of Us*. The final study will examine the experience of subverting player understanding of their own choices as accomplished in *Shadow of the Colossus* and *The Stanley Parable*. Of note, I will make mention of multiplayer experiences within the taxonomy, but for the purposes of this research I will not be deeply analyzing interpersonal interactions on a psychological or sociological level.

It is ultimately my goal through the creation of this taxonomy and its evaluation to provide a framework of understanding, not strictly a template for creation. I do not intend for this taxonomy to be interpreted as a guideline for making new games; rather, I see different trends in the methods of delivering choice to players over the history of game development that, if better
illustrated, might provide deeper insight to player responses to games. Such insights might also serve to provide a bridge of discussion between the academic and development worlds.
CHAPTER 1
SIMULATION AND REPRESENTATION

Simulation

In her book *Guide to Computer Simulation and Games*, Katrin Becker defines a simulation as “the implementation of a model” (40). In this case, a “model is the description of a system you wish to study and a system is a collection of elements that act together to achieve some goal” (39). This definition is broad, allowing for simulations to cover everything from complex mathematical and physical processes such as gravitation or molecular interaction to highly abstracted and fantastical concepts such as dragons teleporting around an open field. The latter example is of particular import to the video gaming community since so many games take place in abstracted worlds filled with fictitious creatures. Double Fine’s *Brutal Legend*, for instance, puts the player in the shoes of a heavy metal band road crew member who finds himself sucked into a supernatural landscape filled with jagged, metallic, and often cartoonishly hilarious imagery that is part of the heavy metal music scene. Becker ultimately concludes that “in the computer simulation community all games are simulations, but not vice versa” (64). Based on the broadness of her definition for simulation, the former statement might be true, but it is an insufficient statement in the context of the greater community of game developers, players, designers, philosophers, and computer scientists. The term simulation has no one standard definition, and the idea of simulation itself is large enough on a philosophical level to be the sole focus of an examination irrespective of its relationship to games studies. Such a large examination is not the goal of this research, but in order to lay a framework to discuss choice structures in games, I must necessarily establish the breadth of simulation as a concept. Different
scholars and developers have varying levels of specificity in regard to what constitutes a simulation, and the term thus loses efficacy when used to analyze player engagement.

Early definitions of simulation came from the areas of computing and scientific study and, as such, tended toward viewing simulation as having a specific use. In a 1979 article in the SIMULATION journal—The Society for Modeling & Simulation’s official journal—John McLeod writes that:

the term *simulation*, strictly speaking, should be reserved to mean the use of a model to carry out ‘experiments’ specifically designed to study the selected aspects of the simuland, i.e. the real-world or hypothesized system that has been modeled. (Oren 83)

While this definition looks similar to Becker’s, McLeod views simulations as a means of experimental discovery in addition to being expressions of models. His interpretation implies a problem whose solution is unknown, but might be solved through mathematical modeling. Additionally, the distinction between real-world and hypothetical indicates that simulations can gauge structures that are internally consistent within themselves, e.g., video games, but not necessarily grounded in real life. Industrial engineer and author of *Systems Simulation: The Art and Science* Robert Shannon writes in the proceedings of the 1998 Winter Simulation Conference that:

We will define simulation as the process of designing a model of a real system and conducting experiments with this model for the purpose of understanding the behavior of the system and/or evaluating various strategies for the operation of the system. Thus, it is critical that the model be designed in such a way that the model behavior mimics the response behavior of the real system to events that take place over time. (1)
Shannon’s explanation of simulation adds a further stipulation in that the experimentation within the simulation must tie as closely as possible to a real-life analogue. In the World Technology Evaluation Center’s (WTEC) 2009 *International Assessment of Research and Development in Simulation-Based Engineering and Science*, chair Sharon Glotzer adds even more specificity to the definition:

> Simulation involves the application of mathematical models using a computer to the study of the underlying physical and chemical processes, and prediction of the behaviour and properties of systems, including natural and artificial materials, flow in liquids and gases, energy at all scales including the cellular level, and biomedical sequelae. (377)

Not only do simulations have real-life analogues with the purpose of producing the understanding of specific research questions, but practitioners of simulation, at least by Glotzer’s definition, favor physical phenomena in their use. The entirety of the 392-page report from WTEC only mentions video games in reference to the computational power of console hardware. The report, of course, is concerned with the research usefulness of simulation, but the focus of Becker’s own work is the use of games and simulation for the purposes of education. This exclusion would seem to indicate a fundamental difference of interpretation between Becker and WTEC’s views not only on the definition of simulation, but its areas of use.

The more refined definitions from this computer science perspective would seem, in the case of video games, only to consider the background systems of the game itself to be simulations, not the game as an entire experience. In the aforementioned *Brutal Legend*, for instance, there is a gravity element that keeps characters tethered to the ground. If Eddie, the main character, drives his car off a cliff, he will fall. The physics relationship, however, is less
complex than the real world. Falling does no damage to Eddie or his car; sprouting wings allows him to indefinitely fly around battlefields with no regard for wind resistance or air currents, and Eddie can run over certain demonic enemies to deal damage. There is no physical consequence to him as there would be in real life from these actions. By the definitions above, *Brutal Legend* seems to fail at being a simulation even though Becker claims all games are simulations. On its face, the game does not appear to study anything or to provide any illumination regarding real-world physics systems per McLeod’s definition. The basic physics of the game in no way mimics real-world physics in any form but that of resemblance—e.g., momentum can destroy some enemies, but has no impact on the driver or most objects in the world—so the game fails to meet Shannon’s requirements, and there is certainly nothing in the game so specific as Glotzer’s liquid flows or energy states. There is, nonetheless, some basic form of physics system that models out particular goals whereby players can experiment. Though there are no real-world physics models in *Brutal Legend*, McLeod’s idea regarding hypothesized models might apply to the internally consistent relationship between objects in the game world. Adding to the confusion, many games, *Brutal Legend* included, are not purely mechanical objects. Non-mathematical narrative components or multiplayer interpersonal components do not have a clear place without widening the scope of simulation fields.

Tuncer Oren of the University of Ottawa compiled a list of 99 definitions of simulation across multiple areas (which includes McLeod, Shannon, and Glotzer’s respective definitions) that demonstrates not only the breadth of the simulation’s use, but that its breadth has grown over time. While early definitions heavily focused on simulation’s usefulness for computer
scientists, fields such as business and philosophy have also adopted the concept. Business, according to Oren’s list, treats simulation as:

Acting out or mimicking an actual or probable real life condition, event, or situation to find a cause of a past occurrence (such as an accident), or to forecast future effects (outcomes) of assumed circumstances or factors. (85)

The business definition includes a less systemic interpretation of simulating events, even allowing for staged rehearsals as a method of experimentation. Staging a rehearsal, beyond any modeling of economic systems, cannot purely account for human behavior through mathematical modeling as computer science definitions might suggest. The definition from Dictionary of Accounting Terms, also included in Oren’s list, exists somewhere between the computer science definitions and business:

Simulation: Type statistical modeling, using a computer, that attempts to mathematically predict the results of an action or series of actions, based on assumptions about how different variables affect each other. (86)

The marketing version of simulation concerns itself only with the outcome, and further appears to assume relationships between elements of the system. Since marketing and general business are part of the same field, it is not unusual that these two definitions share a softer stance due to the difficulty of calculating human behavioral factors. It would seem, in fact, that the further from concrete data simulation moves, the broader its definitions become.

Philosophical definitions provide perhaps the broadest look at simulation. The Oxford Dictionary of Philosophy provides the following, which accounts for some of the qualitative elements of simulation that the business definitions produce:
Simulation: The view that our understanding of others is not gained by the tacit use of a ‘theory’, enabling us to infer what thoughts or intentions explain their actions, but by reliving the situation ‘in their shoes’ or from their point of view, and thereby understanding what they experienced and thought, and therefore expressed. (371)

Lacking in this explanation are any sort of numerical or systemic components. Scientific models give way to an empathetic approach dependent on a subjective recreation of events. Such a recreation could closely resemble a story from a book or video game, and in fact the business definition does exactly that when it refers to acting out a scenario. In his essay *On Fairy Stories*, J.R.R. Tolkien likens telling a story to creating a secondary world within which a separate set of laws apply, but that is still tied to the primary world. If the secondary world fails to sustain its consistency, then someone within it will return to observing the secondary world from the outside rather than as an absorbed participant. A simulated business or philosophical scenario follows the same rules by the scenario’s own definitions. The simulation is only useful if its internal consistency does not break and reveal, in Tolkien’s case, that the fantasy of the world is false, or in the case of a marketing survey, that the scenario is unreal. Because these simulations are not strictly controlled numerical systems, even something as simple as human awareness of a simulation being a simulation can affect behavior within the system.

Philosophy does not stop at simply setting up empathetic scenarios for behavior assessment. Some theorists go so deep as to question the very nature of reality as a sort of simulation in its own right. We do not, by this concept, experience “the raw sensory data [of the world] but a simulation of them. The simulation of our sensory experiences is a hypothesis about reality. The simulation is what we experience” (Norretranders, 289). Tor Norretranders discusses
this theory by framing the ultimate perceptual experience we have as a combination of different stimuli that are not individually perceived, but rather absorbed as a whole. Humans do not perceive every individual reaction that occurs in a physical event. A mosquito bite involves the insect landing on an arm, inserting its proboscis into the skin, drinking blood, and flying away. The constituent elements that make up this experience are substantial, including any sound the mosquito might make, miniscule fluctuations in the air from its flight, the feel of the insect landing on skin and hair, the injection of saliva and extraction of blood, the subsequent itching from histamine reactions, and many more. The summation of a mosquito bite from the perspective of a human might amount to the sting of the bite, the itching of the aftermath, and nothing else, but countless individual components contribute to the entirety of the experience down to each nerve signal and neuron firing in the brain. By Norretranders’ approach, reality of the bite is simulated because the final experience focuses only on the most important components of the experience—those to which humans have adapted most readily to notice.

Alva Noe presents a similar point of view coming from the phenomenological school of perception when he says that “the content of perceptual experience is virtual” (67). He cites numerous examples of the brain filling in the gaps of reality, including most simply the human capacity to identify patterns in the negative space of objects. Italian psychologist Gaetano Kanizsa called such images subjective or illusory contours, noting in his 1976 article *Subjective Contours* that “because virtual lines are only phenomenally present and do not have a sensory modality, one may speak of them as being ‘amodal’” (49). Amodal perception in Kanizsa’s use refers to the Gestaltist principle by which observers perceive whole objects even if they only physically see a portion of the object—effectively the same principle Noe describes. Perhaps the
most famous of Kanizsa’s contours is known as Kanizsa’s triangle (Fig. 1.1). If we cut identical wedges out of three circles, and we position the inner corners of the wedges such that they are at the three points of a triangle, we will begin to see a triangle within the shape. We can further use other contextualizing visual information to imply the presence of an imaginary triangle, and our brains will conclude that there is some form of triangle in the empty space:

![Fig. 1.1. Kanizsa’s Triangle and visual pattern recognition](image)

The triangle is not defined by concrete borders, but rather by a set of other independent systems that suggest something looking like a triangle exists.

Noe points out as a matter of more scientific knowledge that vision itself has many compensatory factors between the way we receive information and the way our brains interpret it. In regard to eyes, he notes:

Blood vessels and nerve fibers are positioned *in front of* the receptors on the retina. These obstructions block and refract incoming light, and they cast shadows . . . rods and cones are not evenly distributed across the surface of the retina. As a result of this, the eye is nearly color-blind in its parafoveal region. Despite these ‘defects,’ we do not experience the world . . . as black and white at the edges. (37)
By all physical standards, the images we see should not look uniform in color, in focus, or even stable based on the processes our eyes go through to capture data. Somewhere in the interpretation process our brains refine, cull, extrapolate, and fill in all of the missing pieces that allow us to see. These examples all fall within the purview of Norretranders’ position that we can consider perception a simulation of the objective real world. Such a simulatory position of reality is not the sole theory of perception, of course. Psychologist James Gibson in *The Ecological Approach to Visual Perception* makes the argument that environments grant affordances to agents within it, where the “affordances of the environment are what it offers the animal” (127). A slick surface affords difficulty of motion as well as the physical sensations that come with slickness. Gibson does note that affordances must be “measured relative to the animal” (127) and that the experience of slickness is unique to the perceptual capacity of the observer. Though this notation may seem similar to perception as a simulation, Gibson differs in his view in that, for him, objects possess inherent qualities that operate in tandem with perceptual mechanisms, whereas the phenomenological position see no way to separate the perception of theoretical inherent qualities from the whole of subjective perception. It is not the goal of this research to establish the truth of either side of this argument, but the opposition between Gibson’s ecological approach to perception and the phenomenological approach illustrates a significant divide within the field.

French social theorist Jean Baudrillard pushes the idea of simulation to an even further extreme in his seminal work *Simulacra and Simulation*. The title of this work derives from the Latin ‘simulacrum,’ meaning a likeness or representation, and ‘simulatio,’ meaning to feign. The deliberate choice in the title immediately serves to separate it from all of the previous computer
science discussion that favors accuracy; the negative implications of the two words philosophically imbue the work with notions of falsity from the start. Indeed, Baudrillard begins his work by citing a passage from the Old Testament book of Ecclesiastes that does not actually exist. The insidiousness of deceitful representation permeates the book. He follows by referencing a one-paragraph short story by Argentinian author Jorge Luis Borges entitled *On Exactitude in Science*. The story tells of an empire where the cartographers grew so skilled and precise that only a map of exactly equivalent size of the empire’s land would demonstrate their abilities. The cartographers create the map, which by necessity covers the landscape it depicts. The uselessness of the object drives subsequent generations to allow the map to fall to ruin, its remnants becoming a part of the land it once displayed (Borges). The obsession with the creation of a perfect mimicry of the world serves no purpose since there is already an actual world, but the obsession in itself is an object of substance that governs the direction of an entire nation.

Beyond its mere creation, the map permanently alters the landscape by being a part of it and thus warps the conception of the empire’s nature. Upon this simulatory fable Baudrillard builds his thesis when he says that:

> simulation is no longer that of a territory, a referential being, or a substance. It is the generation by models of a real without origin or reality: a hyperreal. The territory no longer precedes the map, nor does it survive it. (2)

Hyperreality is recursive, but so prolific within society that its original source is untraceable; the hyperreal feeds on itself to become the next hyperreality.

Baudrillard separates the phases of simulation upon the founding premise that “representation stems from the principle of the equivalence of the sign and of the real.
Simulation, on the contrary, stems from . . . the radical negation of the sign as value” (6). He outlines the phases as follows in regard to a representative image:

1. It is the reflection of a profound reality
2. It masks and denatures a profound reality
3. It masks the absence of a profound reality
4. It has no relation to any reality whatsoever
5. It is its own pure simulacrum

Aesop’s fable *The Boy who Cried Wolf* expresses a simple example of this progression. Crying wolf represents the particular semiotic value of a wolf arriving to threaten a flock of sheep. The villagers understand this relationship, so the cry of, “Wolf!” is a reflection of a reality. Continuing to copy the sign, especially when its intended meaning is unfulfilled, denatures it. The villagers doubt the boy’s message as he falsely calls for their help. The value of the wolf is reassigned with the value of the boy’s own need for attention or perhaps to torment the villagers, thus fully stripping the sign of its original meaning. The word ‘wolf’ and the connotation it bore in relationship to the boy have faded entirely, and all subsequent calls only serve to reinforce the meaning divorced from the original usage. The unfortunate consequence in the case of the fable, of course, is that the boy and the flock die when the wolf next comes, but no villagers respond.

Simulation in this instance is a complete perversion of the original, not an earnest representation with genuine relationships between the sign and its value. Semiotic values are arbitrary, and to delve deeper in Baudrillard’s ethical concerns is outside of the scope of this research. Such an extreme reaction to the idea of simulation, however, casts an ethical light on the philosophical use of the term beyond simply pondering the means by which humans perceive
their surroundings. A world built entirely upon false foundations might easily crumble to equally false actions, so there is sociopolitical value in Baudrillard’s branch of simulation philosophy. There is also far more nihilism regarding technological progress in this perspective, especially when Baudrillard addresses the idea of simulation artifacts as representing simulation itself, “founded on information, the model, the cybernetic game—total operationality, hyperreality, aim of total control” (119). He goes so far as to contend that

> until now we have always had a reserve of the imaginary—now the coefficient of reality is proportional to the reserve of the imaginary that gives it specific weight. This is also true of geographic and spatial exploration: when there is no longer any virgin territory, something like the principle of reality disappears. (120)

The recursiveness of simulation is so overpowering in the current technological climate that, in this view, the universe takes on a new shape where even new frontiers are no longer frontiers, only means of expanding the hyperreal. This thought relates back to McLeod’s earlier point about simulations serving to evaluate hypothetical systems, but the two are entirely antithetical to one another; where McLeod sees the opportunity to build, Baudrillard sees collapse.

Simulation is at its broadest with the philosophical approach, contorting to fit within the structure of the author utilizing it. Such a fluid approach is substantially different from the computer science definitions at the beginning of this review which, though all different, show far less variance in their intent. The differences are so great, in fact, that it is feasible that the computer scientists might reject the philosophical definitions on account of there being no way to numerically model perception. They might also argue that creating a model that appears to recreate all of the physiological signals that indicate perception is as good as being natural
Simulation in Games

Simulation in video games fares little better than other fields in terms of any accepted unified definition. Due to the interdisciplinary nature of video games as products of programming, visual art, design, music, writing, and business, the aggregate problems suffered by simulation as a whole seem likewise to afflict games. Though mentioned in the introduction to this dissertation, Ian Bogost’s definition of simulation from *Unit Operations* bears repeating for the purposes of this chapter: “a representation of a source system via a less complex system that informs the user’s understanding of the source system in a subjective way” (107). Bogost approaches simulation from a perspective similar to that of the computer scientists, but he makes an important caveat: the simulatory system is less complex. Shannon might disagree with this interpretation in that he mandates the simulated system operate as closely to the real system as
possible, presumably in such a way that any discrepancy of function is minimal. Bogost, however, acknowledges a fidelity loss between the virtual and the real, and in fact expects it. Somewhere in our subjective interpretation of that loss, he believes, is our recognition of the simulation. Though this approach is perhaps not useful for scientific purposes, it begins to account for the earlier problem of Brutal Legend’s fantastical world. According to Bogost’s idea, we might still understand Brutal Legend as some form of simulation, though not one of experimenting with the physics of running over demons with Eddie’s car. Rather, we simulate the experience of what it is to be Eddie, a powerful roadie in a strange land empowered by a supernatural heritage to ignore many physical laws. The subjectivity allowed in the interpretation of the simulation provides for a bypass to the quantitative nature of the computer science definitions.

Even with that definition coming closer to accommodating multiple perspectives, there are still numerous approaches to defining simulation in the gaming world that do not all agree. Johan Huizinga—whose work predates video games, but still concerns play—does not use modern terminology to express simulation, but instead views it as a broad form of metaphor:

As soon as the effect of a metaphor consists in describing things or events in terms of life and movement, we are on the road to personification. To represent the incorporeal and the inanimate as a person is the soul of all myth-making and nearly all poetry . . . Personification in this sense arises as soon as the need is felt to communicate one’s perception to others. Conceptions are thus born as acts of the imagination. (136)

Huizinga makes this statement in the context of his assertion that sacred performance or ritual falls within the space of play. Participating in ritual requires that the participants cordon off a
space in which a pre-established set of rules apply and inside of which all worshippers agree to abide by those rules. Simulation also serves a much larger purpose than has not heretofore been referenced by any definition: the communication of perception to others. Huizinga’s representation of the incorporeal is in its own fashion a simulation. The Greek god Zeus for instance, wields lightning which mythology conceives as a weapon slung with intelligent intent. Lightning is powerful, dangerous, and often causes harm to those who have done nothing to provoke it. A victim or observer might conclude that lightning struck with reason and that whatever sentient being decided on that reason might operate upon a code of behavior similar to those of men. In this way, a complex interaction of weather patterns and air ionization transforms into a simpler and more subjective system of an angry man throwing around a weapon. Though he is not referring to a digital space, Huizinga nonetheless describes a simulation of a reality in which players actualize ethical and philosophical constructs through play. Simulation, in Huizinga’s view, is a broad representation of beliefs founded in, but simultaneously supporting, reality.

Eric Zimmerman and Katie Salen take a different perspective in their seminal game studies text, *Rules of Play*. They define a simulation as a “procedural representation of aspects of ‘reality’” (423), wherein the term ‘procedural representation’ refers to the manifestation of objects and actions in the game space as the result of a game’s programmed processes. Their argument treats most examples as abstracted forms of reality such as a *Tetris* tetromino (the proper name for the in-game blocks) falling, which indicates for them that the game simulates gravity (424). Calling the process of tetrominos falling a simulation of gravity is, however, a generous analysis. The blocks fall faster as a player progresses through stages, but their
acceleration is independent of the mass of any other physical body, unlike the effects of true
gravity. Additionally, the tetrominos fall at a constant rate until the stage increases, which also
defies the acceleration element of gravitation. Systemically, the ‘gravity’ in Tetris only
represents gravitational force on the most basic level of an observer perceiving something
falling. Even this perception is not entirely accurate since the true force as the field of physics
understands it is a result of attraction between two bodies with direction depending on the
observer’s position. Such accuracy to the physical concept of gravity does not necessarily
invalidate the experience of falling blocks appearing simulatory. Jesper Juul takes a similar
stance in Half-real: Video Games between Real Rules and Fictional Worlds when he points out
that “simulation can have varying degrees of fidelity to what is being simulated” (170). Juul’s
definition accounts for the reduction of gravity in the Tetris example. He calls such simulations
“stylized simulations” (172) to indicate that there is an aesthetic component to reducing a model
or system. Juul’s classification of a type of simulation that deliberately deviates from real
scenarios is important because he identifies the mutability of the concept.

Famed developer of The Sims and SimCity—games whose intentions to simulate are so
fundamental that an abbreviation of the term appears in their titles—Will Wright even
acknowledges that these degrees of fidelity consciously exist. In SimCity, players find
themselves in control of a large plot of land upon which to develop a city. The game is open-
ended and players must build a city and maintain it (there do exist scenarios that place players in
pre-built cities in various time periods based on real-world events, such as salvaging San
Francisco in the wake of the 1906 earthquake). Control of the game involves zoning areas for
industrial, commercial, or residential buildings, creating transportation infrastructure, installing
power and other utility/municipal services, and managing finances. The inhabitants of the city take care of the rest of the game, building shops and homes according to zoning, crime, and resource availability. The interactions in the game attempt to approximate real-world situations. Residential zones placed next to industrial zones will develop slowly, and zoning that is inaccessible by road or power will not develop at all. Not everything in the game strives to be real, though. Author Tristan Donovan points out to Wright in an interview that SimCity approaches nuclear power in an extreme fashion. Nuclear plants in SimCity do not pollute and generate three times the power of a coal plant, but may catch fire and explode. Wright responds:

A lot of times we will simulate things not the way they actually work, but the way people think they work, for entertainment reasons. So in the original SimCity if a nuclear power plant caught fire, it would blow up at some point—which they don’t do. I mean they just don’t blow up like that. But it’s because people were expecting that. (“The Replay Interviews” Donovan)

In Wright’s own words, he considers his construction of the nuclear power system a simulation, but simultaneously admits that it is in no way accurate to real life. Wright’s nuclear plants are certainly less complex systems per Bogost’s definition, and similarly they represent an abstraction of reality. In this case, however, the abstraction is of an imaginary reality based on a misunderstanding of nuclear physics. SimCity is not simulating a nuclear facility; it is simulating the fantasy of a nuclear facility. The explosions in the game look like the mushroom clouds that result from atomic bombs, but such explosions occur due a sudden burst of energy driving two pieces of nuclear material together causing an energy release. Nuclear material in power plants makes no such contact with itself. Importantly, Wright’s answer to the question preceding the
power plant and his general design decisions directly present a mechanical understanding of simulating a process. He discusses “clarify[ing] your internal model—how does a city really work?” to address actually producing a model, and goes on to state that a developer’s model might conflict with a player’s internal model, thus producing a dialogue. A game, then, can fluidly shift from a realistic approach to a fantastical one for no other reason than “we will simulate things on purpose inaccurately just for entertainment value” (“The Replay Interviews” Donovan).

Miguel Sicart uses Juul’s definition of video games in his work *The Ethics of Computer Games*, but contrary to Juul describes a division between simulation rules and game rules, saying that:

While not every game is a simulation, and therefore need not have simulation rules, it is of particular interest to note the assumption that if a game is a simulation, then those simulation rules are a part of the game structure just like the game’s rules are. (29)

Sicart’s point suggests that there is a separation between video games and simulations, or at least that there is a genre of games that follows a certain set of rules such that it becomes simulation. Such a view contradicts Juul, Zimmerman, and Salen, who would, rather, posit that games by their nature simulate, and also directly defies Becker’s claim that all games are simulations. For Sicart, the rules of the game itself do not qualify as simulating anything. In *Tetris*, the abstract goal of the game is to stack blocks within a confined space as they fall uncontrollably. Forming a complete line of tetrominos across the playing field causes lines to disappear, allowing more space for new blocks; stacking past the top of the playing field results in a loss. These rules

1 Rule-based systems with varying quantifiable outcomes influenced by player exertion
define how a player engages Tetris, but in Sicart’s view they simulate nothing. All simulation takes place in the coding of the game that determines the speed of falling, the environmental constraints of the playing field, and the control of the pieces. The line between the game and simulation rules blurs as games grow in complexity but arguably exists in some capacity. In The Elder Scrolls V: Skyrim (heretafter Skyrim), players create a character called the Dragonborn whose purpose is to overcome the dragon threat to Skyrim (the name of the geographical region in which the game takes place as well as the name of the game). Growing in the game involves taking part in various activities such as sneaking, thieving, casting different kinds of magic, smithing, and many others. The game rules are simple: complete plot-line quests to advance the main story of the game, grow stronger to aid in this process, losing all health results in death. The simulation rules in a game with so many different activities quickly overtake the game rules. Taking a quest from the thieves’ guild means some structure must be in place to log accepted tasks, so the developers simulate a journal. Theft requires some sort of interaction by which goods move from the victim to thief, so the developers must simulate an inventory system that, in Skyrim’s case, accounts for the weight of objects (which itself requires a simulation of character strength and the ability to carry large loads). Thievery is generally considered bad even in fantasy worlds, so the developers then simulate the personalities of the targets, the onlookers, and the city guards. The exception to this type of divide, Sicart says, is when the simulation rules are simultaneously the game rules. There is, of course, an entire genre devoted to such design conveniently referred to as simulation games.

Simulation games typically put the player in either direct control of an activity such as flying, surgery, or even personal interactions, or put them in an omniscient position governing
multiple complex systems. Will Wright’s aforementioned *SimCity* falls into the latter category with its complex civil and social systems. In his book *Emotional Design*, cognitive scientist Donald Norman notes of the former type of simulation game that:

> The most elaborate video games are the full-motion airplane simulators used by the airlines that are so accurate that they enable pilots to be certified to fly passenger planes without ever flying the actual aircraft. But don’t call these “games”; they are taken very seriously, and some of them can cost as much as the airplane itself. (132)

Such simulations are not limited to airlines; the public has access to games like *Microsoft Flight Simulator* that support similar levels of accuracy to their industrial equivalents. Microsoft’s game, for instance, allows players to load in different weather and landing data, and its instrument layout replicates that of various aircraft. MicroProse, an early development studio started by the father of the *Civilization* series Sid Meier, focused heavily on simulation game development for home computers and consoles. Their catalogue includes everything from submarine piloting in the Pacific during World War II in *Silent Service*; business management games such as *Roller Coaster Tycoon* which puts the players in the shoes of an amusement park manager who must construct interesting amusement rides while also maintaining equipment, security, and operation costs; and Sid Meier’s own *Civilization* games which task the player with building cities, spreading culture, practicing diplomacy, warring with native tribes and foreign enemies, and researching new technologies. There is even a subclass of simulation known as a god game that literally puts the player in the position of a deity governing subjects through supernatural manipulation of natural phenomena. Peter Molyneux’s *Populous*, the first of these games, tasks the player with leading followers to defeat the followers of an opposing deity.
Accomplishing this task requires the player to expend divine power—Manna—to raise or lower the landscape to allow followers to build and expand settlements. More followers and settlements translate to more accumulation of Manna which the player can expend on different divine actions such as turning a leader into a formidable knight unit, causing earthquakes, turning land to swamps, or raising a volcano.

Even across these different simulation games, there is variety in exactly how much is being simulated. The types of simulators to which Norman refers strive for accuracy, especially in the instance that they are intended to train for real-world applications. A flight simulator, after all, that does not accurately teach a pilot how to fly poses a threat to the lives of the pilot and passengers alike should it fail to properly depict flight conditions. Games such as SimCity, Civilization, and Populous are less clear in their definitions. SimCity includes ‘sim’ in its title, but, as Wright explained, many elements of it are deliberately incorrect for dramatic effect. Civilization has a complex set of systems, many of which have real-life analogues for reference. Trade routes and the spread of religion, for instance, all have historical accounts as to their purpose and mechanisms, and developers can make use of these to bolster those same systems in Civilization, technically making it part simulator. The game itself, however, is most typically advertised as strategy; its most popular user-defined labels on the Steam store (the largest access point for digital games on computers) are Turn-based Strategy, Strategy, and 4X. Molyneux has no experience with being a god, nor does he have any reference to one, but he extrapolated the natural necessities for civilization and growth of religion into the available actions of Populous.

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It might seem as though there is at least a basic core of mathematical principles at work beneath simulation games. Simulating actions like flying requires a sufficiently robust set physics functionality that makes real flight possible, for instance, if a potential pilot wishes to learn principles of real flight. Even if some of the population interactions are loose, the city and civilization-oriented games use models of economics and systematize diplomacy levels between cities or the happiness levels of citizens to inform player action. One particular sub-genre of simulation popular specifically in Japan, however, is the dating simulator, and the games within this subgenre often sit well outside these numerical bounds. In the *Southeast Review of Asian Studies*, Emily Taylor defines a dating simulation as “a video or computer game that focuses on dating and romance and may contain erotic content” (194). She goes on to describe further subdivisions of these games, but notably points out that “the interactive portions of the game arise through options presented to the gamer, which are typically binary, although options with three choices occasionally arise” (194). There is no simulation comparable to the preceding examples according to Taylor’s explanation. Rather, a dating simulation more accurately resembles a visualized choose-your-own-adventure novel; they do not need anything more than the ability to choose options and display the results of choices, and that is how they ‘simulate’ dating. Though in principle dating-sims require no complex simulatory systems, they do not inherently exclude deeper mechanics. The Playstation role-playing game (RPG) *Thousand Arms* incorporates dating-sim elements to help progress through the game. The main character Meis can form relationships with the female characters in the game in a similar fashion to that described by Taylor, but successful interactions affect an intimacy system. Higher intimacy not
only opens up further interactions, but is necessary for Meis to forge stronger weapons which in
turn make moving forward through the game’s combat system easier.

Beyond even loose usage of the term, recent years have seen simulations delve into the
realm of comedy and parody. Bossa Studios’ Surgeon Simulator 2013 is only a simulator in the
basest sense of the word. The player takes the role of a surgeon about to operate in various
scenarios such as performing a heart transplant or operating in an ambulance. The game allows
control of only one of the surgeon’s hands and each individual finger is mapped to a specific key
on the keyboard—A,W,E,R and space. Mouse movement controls hand rotation and movement.
The fidelity of the simulation stops at this degree of movement freedom and eschews all delicate
motor control one might expect from an actual medical training system. Moving the hand around
easily knocks over environmental objects like glass jars, a radio, a coffee mug, and various
medical instruments. Even when the player manages to pick up an object such as a bone saw or
syringe, the object will more than likely be oriented sub-optimally for applying it to the patient.
This sloppiness matters little, though, because even working on the patient’s body is deliberately
messy. Getting through the ribcage to the organs leaves bone strewn about, and the organs come
out with cartoonish ease. By selectively mixing high fidelity simulatory components—e.g., the
control of each individual finger or the number of interactive objects—with low fidelity
components—e.g., gross motor functions, airy physics, biology that is symbolic at best—Bossa
Studios has created a game that is not simulation and seems to mock the very idea of simulating.
Goat Simulator from Coffee Stain Studios likewise takes this comedic approach, putting the
player in control of a goat who traverses a city exploring and causing mayhem. The player can
launch the goat off trampolines, float upward using giant fans, destroy objects in the world, and find strange bonuses such as becoming a demon goat that can draw in all nearby objects.

The world of video games, then, has gone through much the same process as the other academic and practical fields in terms of simulation. Many different approaches from the symbolic origin of games to development to self-aware commentary or mockery leave the idea of simulation jumbled and esoteric. Concern with the replication of systems combined with artistic interpretation eventually gives way to the layering of more abstract, qualitative ideas like narrative or personal identity. We do not refer in traditional media to a story, for instance, as though it were a computer simulation; it is a story (though we might arguably refer to a story as a simulation of real life). Since video games have stories, cinematics, visual art, and music, it seems likewise disingenuous to try and refer to the aggregate experience solely as a simulation.

**Representation**

Through all of the differing definitions of simulation, it is clear that regardless of the granularity of the models and processes, a system or concept is at least being represented. The lack of specificity seems to lie in the fact that there is no apparent dialogue between all of the different theorists, practitioners, and their respective ideas of what, exactly, constitutes simulation. Every new facet of the concept is another layer upon each layer before it. The concept of replicating something, however imperfectly, has recorded roots long before the earliest of the aforementioned definitions. In his examination of the nature of epic poetry, *Poetics*, Aristotle refers to the construction of stories as ‘imitation’:
Imitation comes naturally to human beings from childhood (and in this they differ from other animals, i.e. having a strong propensity to imitation and in learning their earliest lessons through imitation). (6)

Notably, he raises the point of children learning early lessons through imitation, suggesting that the process of imitation itself is imperfect. Imitation may proceed to becoming more accurate as time wears on, but it nonetheless begins as less than what it aspires to be. A child trying to learn to throw a ball like a professional baseball player will, for instance, lack strength and form. He may let the ball go early, causing it to ground quickly, might let it roll off limp fingers, might throw from the elbow instead of the shoulder, and all of these mistakes will be in imitation of release the ball forward from the arm. Eventually he will learn to throw correctly, quickly, and professionally, and he will cease to imitate.

Video games follow a similar path, though they do not transcend imitation. In discussing the production of Fable 2 with creator Peter Molyneux, Tom Bissell notes a dissonance in his experience playing a more visually realistic game like Resident Evil 5. The characters and their zombie opponents in Resident Evil 5 have high levels of detail that demonstrate an attempt at a real-world aesthetic (as real as zombies might look), but Bissell finds that the cartoonishness of violence is inconsistent with the presentation of the visuals. The impact of bullets in the game is visually extreme—far more so than that of real life. Fable 2, on the other hand, features a less realistic style with exaggerated animations including belching in the faces of other characters, but he does not feel the same dissonance. Molyneux responds:

We’re very close to realism, but the closer we are, the further we are away, weirdly enough. So the visual style we picked . . . it’s almost abstract; the colors are a little bit
brighter. I think that, subconsciously, that keeps you from thinking, *Hey, that person’s eyebrows are not moving in the right way...* you look at it and you know that maybe this never was a place you could go to or visit, but it was close enough to reality that you weren’t estranged by it. (Bissell, 189)

The imitation, in this view, resolves into a cohesive experience because consistency is easier when it is broadly imitating. Players don’t need to concern themselves with the reality of the eyebrows if the macroexpressions the character body provides convey the meaning of the moment. This approach is actually opposite to that of *Surgeon Simulator 2013*, the comedy of which derives from the absurd difficulty. As mentioned, *Surgeon Simulator* gives control over the microexpressions—the fingers—to deliberately make large-scales actions difficult.

Molyneux describes exactly the inverse, even later in the interview bringing up that he thinks the Uncanny Valley³ does not matter to players so long as you stop at the right stage of separation between the human and the artificial.

Plato offers further refinement in regard to imitation in his dialogue *The Sophist*, where he relates two types of likeness-making: copying and imitation. A copy attempts to replicate that which it imitates with exactness, its proportions and color matching those of its source. Imitation, in his example, serves the spectator through trickery, taking into account the spectator’s vantage. A sculptor crafting a statue too large for a spectator to perceive normally must distort a statue’s actual shape so that it looks normal from the point of viewing on the ground. Though Plato writes contemporarily to a type of art relevant to his time, his point resonates deeply with all of

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³ A phenomenon where artificial humans—computer generated or robotic—created with near-human features generate a sense of unease or revulsion in the viewer.
the previous discussion regarding simulation. Developers of video games resemble the sculptor, having to decide how much to simulate reality in their games based on the viewing (or playing, in this case) needs of their customers. If *The Legend of Zelda* is a game about open adventuring, then, technological limitations notwithstanding, there are a host of elements that might appear to give the true face of travel. Walking takes time and energy, so Link might grow tired or his feet might ache, slowing his walk. There is no climate control in the wilderness, and he travels through multiple locales. He will freeze and he will sweat, his clothing will wear and smell and fade. Combat injuries might cripple him or leave him bloody, each requiring differing types of medical attention. He might idly wonder to himself during a quiet moment on the trek between slaying large monsters what his purpose is in life, or recall some obscure trinket from when he was a child. None of this is in the game, however. Link can walk indefinitely at the same speed. He never feels the touch of the weather unless the game presents it as a notable obstacle, he can heal all injuries via the collection of heart shaped restorative items, and there are no idle thoughts. Link particularly has no voice beyond the grunts of combat; only the other residents of Hyrule ever speak. Even missing all the pitfalls and desperations of true adventuring, *The Legend of Zelda* still feels like an adventure. Shigeru Miyamoto and his development team captured the essence of a journey through representing the larger ideas of the journey rather than worrying about the minutia. The game exists as a completely different type of imitation from its simulation game siblings who seek to copy, in Plato’s words, rather than imitate. Given an overabundance of the aforementioned adventure elements, a game might even risk growing as useless as Borges’ map, so big that, in its replication of real life, it covers the capacity to actually live. The weakness of the term ‘simulation,’ then, lies in the fact that there is a spectrum of imitation that
is confusingly absent in both the games industry and games studies scholars’ treatment of simulation in games.

For the sake of this research, I propose that, to discuss games from a perspective relevant to the academic and industry spaces, I must view video games as a spectrum ranging from simulation to representation. Since I have cited Baudrillard as part of this analysis, it is important to note that I am not using the terms simulation and representation as he does. Whereas “representation attempts to absorb simulation by interpreting it as a false representation, simulation envelops the whole edifice of representation itself as a simulacrum.” (6) Representation in this interpretation retains some reverence for the real, whereas simulation attempts to become its own reality. These terms are charged against common definitions of simulation as well as those used in programming. To discuss games in Baudrillard’s terms, especially given the nature of simulation not only as a scientific practice, but a genre itself, would be confusing. Rather, I choose to use the opposite of Baudrillard’s definitions to fit more in line with the majority of relevant video game discussion. Simulation manifests as Plato’s copying, an attempt at making the most exact replication of an object or circumstance. Representation imitates its inspiration, sometimes out of developer choice, sometimes out of necessity. The video game industry is constantly pulled between both ends of this simulation-representation (SR) spectrum. Computer science drives the core functionality of a game; to create a racing game means evaluating and programming all of the systems necessary to replicate the experience. A computer scientist approaching this problem might look at traction of road material, traction of tires, combustion principles in engines, the weight of a car and its effect on momentum through turns, and build a replication founded on numerical accuracy. Game
designers are just as easily philosophers in their own right, however, sometimes attempting to deeply weave mysticism and ideology into their artistic work. Square Enix’s *Xenogears* tells its story atop a framework of Gnostic allegory, while Ken Levine bluntly weaves Ayn Rand’s Objectivism into *BioShock*. The philosophies do not need to be those of established theorists; developers can easily incorporate their own thoughts for the sake of personal experimentation or fulfillment.

Developers must still build these latter expressions atop the mechanical systems of the game, even if they do not appear mechanical themselves. The ground-up construction style faces limits of technology. Graphical fidelity cannot yet match real life, true artificial intelligence that can respond dynamically as a human might does not exist, and the majority of our gaming experiences still take place on screens that cordon off the game world. To account for such limitations, games occupy all different points on the SR spectrum. Beyond the game experience as a whole residing on the spectrum, each of a game’s internal systems might claim different levels of simulation or representation in relationship to real life. The understanding that there are deliberate, designed levels of fidelity in every system is thus at the core of building an argument for the aggregate gaming experience.
CHAPTER 2
THE ACADEMIC AND INDUSTRY DIVIDE REGARDING CHOICE

Choice in games provides the foundation for all interaction. While, on its face, this statement might seem obvious, games are restricted systems; they exist only as their developers create them, and choice is thus a deliberately implemented and designed tool for players to navigate the world. Discourse among the academic and developer arenas regarding choice unfortunately yields a variety of different, often murky explanations of how choice functions in video games. In his discussion regarding the development of an interactive storytelling engine, designer Chris Crawford agrees that interactivity mandates choice, expressing that “every interactive application must give its user a reasonable amount of choice. No choice, no interactivity. This is not a rule of thumb; it is an absolute, uncompromising principle” (Crawford 191). Crawford’s assessment is wide-reaching, and though he goes on to specify that designers can view choices as the “verbs” available to the player for action, he does little to explain the actual implementations of choice in virtual games. Such broad sentiments regarding choice are not uncommon. Sid Meier, co-founder of Firaxis Games and creator of the Civilization series of strategy games, has often referred to games as “a series of interesting decisions” (Alexander). While making for a punchy and easily repeatable definition, the statement itself does nothing besides indicating choice plays a role in a game.

In a lecture at the 2012 Game Developers Conference, Meier elaborated on his notion of decision-making: “There’s a very key idea that when the decision is presented to the player, ideally it acts in an interesting way with the game situation.” The interesting decision, he explains, “would allow you to express your personal play style” (Alexander). His expanded
explanation in the discussion continues to assume that the audience readily knows what choice is as he goes on to describe general scenarios that he believes are interesting in his game. Ultimately, he leaves his definition just as broad as Crawford’s. The games Meier creates provide a clearer view of how he sees players enacting choice. The Civilization series is complex and sprawling, offering a vast collection of interacting mechanics that forces players to make choices. Barbarian hordes might attack early in the game, forcing the player to respond either defensively through repelling the attackers or offensively by storming barbarian encampments. The choice to attack could depend on a player’s movement through the research system, which itself advances technological growth. Stronger weapons mean a greater chance of success against the barbarians. A conquered barbarian camp might yield a worker unit the barbarians captured from a rival civilization, enabling the player either to return the unit for the sake of diplomacy, or to keep the unit to speed up land development. Civilization’s systems constantly intersect, providing countless permutations of game states that each require consideration and choice to handle.

For Civilization’s systemic complexity, Meier’s assessment seems sparse. He clearly endorses the notion that choice is fundamental, but the majority of his discussion about what makes a choice ‘interesting’ is largely conceptual. Informed choices and feedback are important to his design philosophy, but those are external to the actual convergence of system states that lead to a decision. He discusses situations where interesting decisions happen, such as risk-versus-reward (e.g., weighing the risk of venturing out to destroy the aforementioned barbarian camp against the potential for diplomatic gain), or short versus long-term decisions (building a wonder like the pyramids which takes a long time, but stands to have a dramatic impact upon the
cultural output and work efficiency of a civilization). These situations are not specific systems of choice-making, however, but rather thematic categories in which choices take place. In a single lecture, Meier turns choice into a catch-all term for everything from the simplest movement to the largest strategy. His usage of the term is correct in a global sense; everything it encompasses is a choice by the definition of the word. Choices in video games, however, are engineered elements wherein developers must consciously provide players with methods of dealing with systemic events.

Each option available to the player occurs in some form of mechanical or narrative context that alters the meaning of the play experience. Launching a nuclear attack in Civilization might raise the ethical question of the value of reprehensible acts in relation to victory, but doing so happens at the click of a mouse button. Victory in a match of Street Fighter IV—which pits two players against each other in fast-paced, hand-to-hand combat—might raise the exact same question, but the method of choice that leads us to that question is quick, visceral, and nothing like Civilization. Street Fighter presents voluntary, competitive violence between individuals, while Civilization deals with violence as a sometimes necessary component of the growth of nations. ‘Interesting’ is simply an insufficient descriptor for the choices posed in either game. Broad labeling does nothing to better provide understanding of how choice in games affects player response, nor does it provide a method of development to create good choice.

Meier and Crawford are not alone in the video game industry in oversimplifying the mechanism of choice. Peter Molyneux, renowned for promising large amounts of narrative and mechanical content in his games that present consequences to player choice, says in his 2009 Game Developers Conference lecture:
“In today’s world of bland entertainment . . . it’s so important for people to remember stuff and remember the things you do, and if you involve them in the story and involve them in the choice, then they’re far more likely to remember.” (Carless)

Of Molyneux’s work, his *Fable* series best exhibits his attempts to provide choice and consequence. The series affords players moral options that alter the main character’s appearance and the subsequent responses of the townsfolk. *Fable II* provides a decision early in the game to retrieve five arrest warrants for Derek the guard, or instead give them to the criminal Arfur in exchange for a coin. The latter choice leads to the area becoming run-down and crime ridden once several years pass in the game, while the former creates a safe and desirable area with more shops and a better economic rating. The consequence of the choice, however, is not explicit at the time *Fable II* presents the option to the player, and Molyneux simply concludes of the situation “If you don’t tell people . . . the significance of the choice they are making, you can run into trouble.” In this view, a player should theoretically receive notification that a choice will have long term ramifications. Choice, according to Molyneux, may require some degree of hand-holding in order to avoid the hypothetical trouble of permanent consequence.

Developers who share methods of providing choice still demonstrate differences in practice under a blanket term. In a statement somewhat contradictory to Molyneux’s, Warren Spector says that

“choice and consequence . . . are about differentiating player experience. My ultimate goal is when two people talk about their experience playing Disney Epic Mickey, Deus Ex, or one of the Ultima games I worked on, they describe different experiences. That’s the magic of games.” (Lopez)
Similarly to Molyneux, Spector has a design history rife with games built around choice, and the two appear to share the goal of providing players with unique experiences. The conflict between the two arises from the fact that Spector’s desire to provide a unique experience easily accommodates disguised consequences. After the warrant incident, Molyneux implemented a more direct approach in *Fable III* where an advisor often clearly dictates the outcomes of choices such as altering tax rates on the town. Lowering taxes makes the people happier, but war funding suffers, and the advisor plainly states as much when the option arises. Spector’s games have historically provided no such obvious hand-holding. *Deus Ex*, Spector’s cyberpunk RPG, involves multiple paths to move through areas. Selecting the proper response in a discussion with a man named Harley at the docks at the beginning of the game earns the player a key, and likewise the proper discussion with an old woman hints that entering the Statue of Liberty from the rear entrance will provide less security resistance. Neither technique of explaining choice is inherently right or wrong; what is most important here is that both approaches are valid, but both are simply referred to as choice despite the fact that the methods of delivering choice (an obviously presented advisor vs. an organically occurring conversation) and the interactions themselves (a single option selection vs. multiple option branches and statistical skill based actions) differ.

Up to this point, all the developers mentioned here have been Western in origin, but the problem of unclear simplification is not unique to Europe or the USA. Japan has a long history of roleplaying games and visual novels that actively attempt to immerse players through choice. Yuji Horii, creator of the popular Japanese RPG series *Dragon Quest*, utilizes silent protagonists in the *Dragon Quest* games because
“the main character in the game is actually the alter-ego of the player—so you don’t want to push words into the player’s mouth. We want the player to feel like they are playing the game, and their own play affects the game. So the only thing you can actually say in the game is ‘yes’ and ‘no’.” (Nutt)

Horii’s comment exposes yet another approach to choice, operating on the premise that removing forced choice beyond the simplest of inputs provides a sense of control. Shigeru Miyamoto, famed designer of *The Legend of Zelda* and *Super Mario Bros.*, feels that “video games . . . have the unique ability to etch . . . images into the player’s memory because of their active role in choosing the path that led them to those images.” (Peckham) Much like *Dragon Quest*, Miyamoto’s *The Legend of Zelda* offers little in the way of direction, leaving much of the choice to occur organically through play, or to take place in the player’s imagination. Once again, choice takes on a nebulous form that appears to exist in a clear state in the mind of the designer, but externally exhibits no distinction from all the previous examples.

Even self-aware choice design tends toward lacking specificity. Ken Levine deliberately plays with player understanding of choice in *BioShock* by wresting control from the player in the middle of the game, revealing that the phrase “would you kindly” has been used to manipulate character action under the guise of direction. The player then watches as the main character Jack kills objectivist entrepreneur Andrew Ryan. Levine calls Ryan’s submission “the ultimate insult to the player, that he chooses to die but you can’t choose to do anything. The rest of the game after that is to establish your will in the world. Will is a very important thing in video games. What will do you have?” (Remo)
Levine uses the removal of control as a means to shine a light on the fact that players frequently act in games by direction without thinking. Quest givers, user interface markings on maps, or pop-up tutorials frequently direct players, enough so that following such direction comes as a second nature. Levine offers up such a signpost character in the form of Atlas, who then proves to be the one manipulating the main character (and by extension the player) with the mind-controlling phrase. The turning moment of losing control completely makes a powerful statement about player relationship with the world in games, but Levine’s idea that choice plays a different part in the game after that sequence is inaccurate. The choice *BioShock* offers players is no different before or after the sequence: follow the quest markers, collect hidden items, or choose whether to save or harvest the experimental Little Sisters for their ADAM (the resource used to empower player skills).

Through all of these examples, various game designers show that they use choice for elements in games ranging from mechanical interaction to high-concept commentary. These choices are not equal to one another in execution. The former two examples of *Street Fighter* and *Civilization* are highly mechanical in design. *Civilization* operates on a complex interaction between various systems governing combat, food supplies, happiness of the population, tourism, faith, resource availability, and more, but ultimately there is no authored story to the game. Any story derived from play comes from a player connecting various events into a unified experience after a match is complete. *Street Fighter* is similar. Though the game has a story and each character has a history, these elements are primarily hidden within manuals, outside text, and other media. *Street Fighter* itself is about skillful execution of combat maneuvers through quick input on the controller and observation of the opponent. Consequently, reasons for choice are
more easily measurable. A player with more resources or health may be more willing to take risks because the potential loss will not set her back, or a player with no resources will seek to make a deal to get some. The introduction of authored narrative elements into a game, however, complicates choice.

It is important to note that the action-consequence nature of decision making remains quantifiable at the mechanical level in games with story and choice; the game records the state of all inputs that affect the story—character deaths, for instance—and provides an appropriate decision. Earlier games with less data storage could only provide limited narrative choice. As Yuji Horii mentions in his interview, *Dragon Quest* provides the player with several yes-no prompts over the course of the game that dictate the progression of its simple story. The king of Tantagel castle, for instance, will not let the player begin the game without first answering ‘yes’ to a dialogue prompt. Answering negatively, however, results in an endless loop of the king’s prompt repeating itself. The king’s prompt is clearly a mechanical decision, but less clear is the player’s intention. In decision regarding resources in *Civilization*, the reward for action is clear. In the case of *Dragon Quest*, refusing the king’s offer is to refuse the game itself, but the value a player places on that refusal is not quantifiable. Modern games build on this concept, such as Bioware’s science fiction RPG *Mass Effect*, which utilizes a wheel of multiple responses to dialogue prompts. The game immediately quantifies some decisions with red and blue color-coding that corresponds to either renegade (generally negative) or paragon (generally positive) ethical decisions, but many choices move the game forward without fanfare, which is in conflict with Peter Molyneux’s assertion that withholding warning from a player might cause vague trouble for the game experience.
Developers appear to have a large problem when it comes to communicating choice: they have no practical taxonomy of choice types in games. Choice, as Crawford suggests, is fundamental, but since developers design the choices both mechanically and conceptually, a lack of true classification leads to the esoteric discussions I have presented here.

**Academics on Choice**

Before further addressing the lack of taxonomy for choice, it is worth examining the academic approach to discussing choice in video games in order to ensure the problem is not exclusive to developer discussion. Academic analysis, in theory, provides a deeper look at why choices matter and how they work. Unfortunately, the field appears to suffer a similar problem to that of the developers by assuming choice has the quality of being so endemic to experience that it need not be classified.

Jesper Juul, in his book *Half Real: Video Games between Real Rules and Fictional Worlds*, utilizes a classic model to define games that shows some congruity with the above developers. A game according to Juul has:

1. A rule-based formal system
2. With variable and quantifiable outcomes
3. Where difference outcomes are assigned different values
4. Where the player exerts effort in order to influence the outcome
5. The player feels emotionally attached to the outcome
6. And the consequences of the activity are optional and negotiable (6-7)
The last three entries in the list are congruous with Crawford’s opinion that choice is an unassailable necessity to games. They also match up in varying capacities with the developer commentary. Negotiable consequences, for instance, might apply to Molyneux’s approach to letting players know what the outcomes of a choice might be. Providing a player with knowledge of the effects of the tax in *Fable 3* allows limited negotiation with the limited system of the game—impose the tax, tax less, or maintain the status quo. Player effort manifests in *Deus Ex* through the exploration and interaction with NPCs, both of which can go wrong and produce resistance in the form of combat or forcing the discovery of alternate routes. The categorization of a game’s elements is not a categorization of the choices within the game, however. Juul’s definition helps to further endorse choice’s importance, but contributes nothing to the understanding of choice implementation.

Salen and Zimmerman in *Rules of Play* actually provide a breakdown of the components of choice. They separate a choice into five stages, each of which corresponds to an event internal or external to the game. Internal events are “related to the systemic processing of the choice” while external events “are related to the representation of the choice to the player” (64). The five steps of a choice they produce are:

1. What happened before the player was given the choice (internal event)
2. How is the possibility of choice conveyed to the player? (external event)
3. How did the player make the choice? (internal event)
4. What is the result of the choice? How will it affect future choices? (internal event)
5. How is the result of the choice conveyed to the player? (external event)
This list closely resembles one published by Zynga designer Brice Morrison on Gamasutra in regard to his own understanding of choice in games. Morrison says the key traits vital to a meaningful choice are:

1. **Awareness** – The player must be somewhat aware they are making a choice (perceive options)

2. **Gameplay Consequences** – The choice must have consequences that are both gameplay and aesthetically oriented.

3. **Reminders** – The player must be reminded of the choice they made after they made it.

4. **Permanence** – The player cannot go back and undo their choice after exploration the consequences (Morrison).

These lists together present a degree of unity between the academic world and the games industry (though neither necessarily applies to all instances of video game choice). The differentiation Salen and Zimmerman establish between internal and external events demonstrates an acknowledgement that the game system ultimately must present and process player choices. In spite of this recognition, the core of both lists focus mainly on the player response. Both analyses view systemic implementation and interaction as something so inherent to play that only the outcomes merit deeper examination. This perspective is understandable; player fulfillment is a major goal of developers, so player responses are the foremost metric for the success of a choice experience.

In *Extra Lives: Why Video Games Matter*, Tom Bissell recounts his experience playing through *Mass Effect* multiple times and the impact it had on him. He finds that:
Games such as *Mass Effect* allow the gamer a freedom of decision that can be evilly enlivening or nobly self-congratulating, but these games become uniquely compelling when they force you to the edge of some drawn, real-life line of intellectual or moral obligation . . . only games actually push you to the line’s edge and make you live with the fictional consequences of your choice. (124)

Jesse Schell similarly says that “a good game gives the player meaningful choices. Not just any choices, but choices that will have a real impact on what happens next, and how the game turns out” (210). These two sentiments closely echo the nebulous approach to choice of the developers, which is particularly poignant coming from Bissell because of his perspective as strictly a player at the time of his quote (Bissell has since provided script writing for games). Bissell’s discourse suggests that players and developers alike might share a general sense of knowing what choice looks like when they see it. While this apparently inherent understanding might offer a positive experience between a player and designer who share a common interest in choice types, it does not provide a meaningful framework for assessing why and how a choice functions.

Marie-Laure Ryan perhaps comes closest to recognizing clear distinctions between interaction types in games in *Avatars of Story*, though she admittedly uses “labels that shift the emphasis toward the user’s relation to the virtual world” (107). Ryan’s categorizations fall into combinations of two different experience relationships—internal/external, and exploratory/ontological. Internal interactivity refers to a player acting as a character directly in the game world as in *Dragon Quest*, whereas external places the player in an omniscient position controlling multiple facets of the game as in *Civilization*. Exploratory games provide no control
over the world, only tourism through it, while ontological games enable players to effect change on the story of the world. These two classifications and their subsequent combinations—internal exploratory, external exploratory, internal ontological, and external ontological—create a strong guide for player experience. The crux of her analysis heavily focuses on a sense of the player having a narrative place in the world.

This perspective is particularly limited when used in competitive games such as *Street Fighter*, which would technically fall under an exploratory heading since the player has no narrative impact on the world. Player selection does, however, affect the organization of the combat brackets when playing against the computer, and since the narrative of the game is simply that the fighting tournament exists in the first place, the game appears to exist somewhere between ontological and exploratory. Likewise, her definitions of external and internal perspectives do not so easily apply. In extreme cases, differentiation between playing a god or a character directly in the world is simple. In *Street Fighter*, characters possess different inherent traits and move sets such as lighter characters being faster, but weaker, or throwing fire balls as opposed to grappling techniques. Internal and external perspectives blend into one another since the player and the character both theoretically have a working knowledge of the other fighters in the game. The player outside of the game, however, has external strategic knowledge of a human opponent that cannot exist internally in the game world. The model breaks down because a player can exist in all areas of it at once.

At the end of her chapter where she lays out her interactivity model, Ryan provides warnings about myths regarding digital narrative, one of which she feels is that “digital narrative is about choice, and the more choice you give to the user, the more pleasurable . . . the textual
experience” (123). She also suggests that the notion that “becoming a character in a story is the ultimate narrative experience” (124) also proves to be a false assumption. The supposition that withholding control from the player could potentially provide a better experience indicates that the parameters within which player experience happens are just as important—if not more so, in some cases—as the experience itself. Her analysis of player experience and control in games, then, gives way to the idea that the onus resides with the developers to make all of the correct decisions to provide relevant choice (or lack thereof) in game worlds. Her model of player experiences might provide a helpful target toward which developers might aim, but the techniques to do so are once again assumed within her examples; there is no practical model for choice implementation.

Player response to choice is undeniably important—without it there is no play experience, and no success in the games industry. The common thread within all the perspectives I have examined here heavily favors the player experience of choice as a grail of design. As I have noted several times, though, choices in games come from the conscious engineering of systems. Johan Huizinga in *Homo Ludens* explains that play takes place within a specific space inside which rules “determine what ‘holds’ in the temporary world circumscribed by play” (11). The rules and structure of the game world, in Huizinga’s reckoning, have a symbiotic relationship with the players—the players must abide by the rules, but without the rules to define the game space, there are no players. In this regard, the types of choices or methods of providing freedom to players are fundamental to creating specific experiences; they are not so easily lumped into a single category of choice that can explain every player experience. Schell says of game balancing, “tune your model as you tune your game” (234). The industry has grown
philosophically and technologically since the beginning of academic interest in video games, but the models from developers and researchers alike still concern only one side of the equation. I intend for the following taxonomy of choice structures not to be a grand solution to game design, but rather a tuning of our model of discussion. An improved model such for how we implement choice such as the one I will present in the next chapter creates the potential for better understanding of not only why developers instinctually create choice systems but also of the resultant sense of agency and identity players feel when engaging with those choices.
CHAPTER 3

A TAXONOMY OF PLAYER CHOICE IN VIDEO GAMES

Taxonomy of Choice

The disagreements and general differing understandings of choice in the previous chapter derive from two sources: the fact that attempting to engineer choice is inorganic and debate over the ludological and narratological value of games. As an example regarding the inorganic nature of engineered choice, in the real world, a social institution such as a police force grows because of a need to enforce the laws that represent the society’s values. The larger a society grows, the more social complications (such as poverty) and anonymity grow, leading to acts such as thievery. The society thus requires the presence of a force to investigate, capture, and prevent thieves. In *Skyrim*, guards serve a similar function, but they also serve a second purpose of framing a player’s ability to choose and move through the game. The guards may arrest a player for killing a villager, but the consequences are disproportionate to the real-world counterpart of the crime; the player can pay a small fine or even break out of prison repeatedly with little relevant hindrance to play. A game that forces a player to sit in prison for five real years due to the severity of a crime has little market viability. Outside of making a subversive statement about video games such as Levine’s *BioShock* effort (which still behaves like a typical game outside of the Andrew Ryan moment), developers must implement choice somewhere between consequence that enables game progress and consequence that feels natural to the world.

Narratology and ludology perspectives make up the second source of differing choice understanding, and they seek to define games either in the space of story or play, respectively. Jesper Juul says that “computer games are not narratives, but phenomena whose qualities are in
exploration and repeatability,” (Juul, A Clash) indicating that the play exists separately from the narrative, and although the two may coexist, they are not the same. Henry Jenkins responds to that notion, pointing out that “some ballets (The Nutcracker for example) tell stories, but storytelling isn’t an intrinsic or defining feature of dance” (Jenkins 119). Jenkins’ argument seems similar to Juul’s, but he makes it with the opinion that, in ballet, we accept that the dance communicates the story and that the story is thus inextricable from the act. The reality of video games is that they can fulfill both perspectives or even a hybridization. Simply browsing Valve’s Steam service—the major digital distribution client for video games at this current point in time—shows a variety of different game types ranging from Japanese visual novels, participatory stories such as Gone Home where the player can only wander through a pre-conceived story, to Sid Meier’s mechanically complex Civilization games, or the purely mechanical test of skill Super Hexagon. Arguing the dominance of narratology or ludology is unhelpful in light of the fact that the market has already accepted a wide array of game types that experiment with both areas as well as everywhere between them.

I propose that a proper taxonomy of choice is a more useful tool to understanding how a developer attempts to create a representation of reality in a digital game space. The degree to which a developer considers the implementation of choice, the ramifications of that choice to the player, and the ramifications of the choice to the rest of the game world is the foundation of the kind of experience a player has. Taxonomy in the biological sense concerns itself with the classification of various creatures according to orders of shared traits. Domain, for instance, splits life into three categories based on cellular structure. The following tier, Kingdom, comprises subsets of the Domain based on metabolism and nutrition acquisition. The hierarchy
of specializations in biological taxonomy derives from the manner in which various organisms have evolved and adapted for their respective environments. Video games do not utilize as clear of a hierarchy throughout their history, but they nonetheless exhibit tiered systems that provide experiences moving from purely mechanical to attempts at replicating real life production of story.

**First-Order Choices**

Henry Jenkins says that “not all games tell stories. Games may be an abstract, expressive, and experiential form closer to music or modern dance” (Jenkins 119). Though a dance or musical piece might have a story that goes with it, experiencing the work hinges on sensory perception of physical actions; music vibrates the air which resonates in the ear, dancers move according to physical laws, and viewers see their movements thanks to the absorption and reflection of light. Stories and meaning happen as a result of arranging sensory experiences into patterns. Games, too, have a fundamental mechanical level that operates independently of any higher, constructed ideas. Early video games such as *Pong* used wiring and circuitry to generate simple game worlds, while modern games utilize game engines—software frameworks that handle everything the game does, including reading controller inputs, the physics of in-game objects, loading images, and playing sound. Whether hardware or software, these platforms for game experiences create the boundaries of a digital world, and dictate the extent to which players will have freedom.

First-order choices are purely mechanical. These choices can be so basic and fundamental to functioning in the game world that they might as well be a reflex, designed to come
instinctively after minimal experimentation. This is not to say that mechanical choices are simple, however; multiple systems chained together will ultimately produce levels of complexity as seen in games like Civilization or Street Fighter, but those complexities still sit upon a foundation of individual mechanics. First-order choices fall into the following categories:

**Spatial:** Spatial choices affect the player’s position in the space the game provides. All games provide some mechanism for movement, though exactly how the movement functions differs based on the genre and perspective of the game. Early arcade games could not technologically handle large amounts of player control. With limited processing power that had to be spread across movement, graphics, sound, and score, early video games such as Pong, Galaga, or Pac-Man afforded little spatial choice. Pong allows only vertical choices when moving the paddle along the edge of the screen, while Galaga uses only horizontal movement. Pac-Man includes both, but it restricts the freedom both directions offer by placing the player in a maze.

More advanced game engines eventually added further variability to spatial decision making. Three-dimensional space adds the potential of a full 360-degree sphere of movement. Games like BioShock take place on the ground, putting the player directly in a first-person perspective and allowing for depth and height movements. The player’s perspective limits visual spatial awareness in a fashion similar to real life—the camera situated in the character’s head limits the field of vision to a roughly 180-degree field to the front. Third-person games such as Bayonetta or Devil May Cry set the camera behind and above the player character and often allow the player to rotate the camera for a better view of the play space. Games such as Civilization, SimCity, or Star Craft put the player in an omniscient perspective in order to
provide control over multiple units in the game space. Movement choices in such games allow not only control of the various units, but also of the view of the world itself. The camera in *Civilization* can move across the entire world to show the player other societies or landmasses, even though the player cannot directly utilize other civilizations’ units.

Spatial choice specifically dictates *how* the player navigates the space. Restrictions in this area can mold player behavior and direct players specifically toward certain goals. *Galaga* restricts movement to the horizontal plane at the bottom of the screen, but enemies arrive in waves from the top and move in a variety of patterns unavailable to the player. The lack of available movement shapes a play experience focused on dodging and positioning to best intercept and destroy the enemy aliens. *Super Mario Bros.* allows for quick horizontal movement with limited vertical movement in the form of jumps. Varied environments, platforms that hang in the air, and enemies with their own movement patterns provide the game with more variations of action; players can move directly into enemies, or avoid them by navigating platforms.

**Interactive Choice:** Interactive choices determine what a player can do in the game world, and they effectively represent the types of verbs available to the player (run, walk, argue, lift, etc.). These choices appear conceptually simple in that, outside a game, we can visualize the difference between picking up a potion or buying a sword, but inside the game developers often take shortcuts with their methods of implementing variety. In the original *Final Fantasy*, for example, item acquisition happens by purchasing something from a shop, finding something in a treasure chest or similar location, receiving something from another character, or winning something dropped by an enemy after battle. Conceptually, these all represent different interactions. Buying
something involves examining an object, perhaps picking it up, interacting with a money wallet, and transacting with a shopkeeper. Finding a sword from a fallen enemy might involve searching the enemy. In practice, these interactions all happen through either a global interaction button, or passively as part of other actions. Items dropped by enemies automatically appear in player inventories, attaching the act of searching for items to the act of attacking and defeating a monster. Receiving an object from another character involves initiating a discussion through the push of a button. That same button eventually transitions to prompting the NPC to hand over the item.

More complex games still provide mere representations of verbs, but the perception of these joys remains broader than games such as *Final Fantasy* that obviously condense actions into generic action buttons. *Minecraft* provides a wide variety of actions, allowing for mining, digging, logging, building, cooking, making potions, smithing, and circuit construction. Each of these choices requires a system within the game to handle its interaction, which is ultimately why providing large numbers of interaction variations is difficult. In order to bypass the situation that *Final Fantasy* provides where one button provides the entire experience, *Minecraft* assigns more supporting actions to its presentation. Building a diamond sword in *Minecraft* requires building shovels and pickaxes to dig deep into the ground to search for diamond ore. Players need at least an iron pickaxe to mine diamond, thus requiring further work find sufficient iron. In addition, building objects like swords requires building a crafting bench, which necessitates building an axe (or alternately punching trees) to get wood both for the bench and the handle of the sword. Even though players do not explicitly have mechanics to hammer materials into blades or to temper them in oil, the process of building has been systematized more deeply to build a game
experience where various forms of creation and gathering are just as important to the game as defeating enemies.

Interactive choices, then, share a relationship with spatial choices in that spatial choice carries players to various objects in the world, and Interactive choice allows them to have an impact on objects in that world.

**Statistical Choice:** Statistical choices determine how the player character can numerically interact with the surrounding game world. Character class is a common decision in digital and analog games alike that gives players a statistical template to begin play, showing up prominently in role-playing systems such as tabletop role-playing game (RPG) *Dungeons and Dragons* or digital RPG *Final Fantasy*. Classes in such games typically indicate a particular way of handling problems that come up in the game. Warriors will fight with physical weapons, Wizards will cast magic, and Necromancers use a particular type of magic that manipulates the dead or undead. Translating these professions into a game space requires underlying systems and numerical values that relate every action a player can take to a consequence in the world. Casting a spell in *Diablo 3* will drain a Wizard’s arcane power, limiting future ability use, but it might also reduce enemy health or provide the player with a shield to prevent incoming damage. Each of those systems—arcane power, health, damage—connect to create a web of numerical interactions. Equipment in *Diablo 3* increases statistical values of the player and thus health and outgoing damage, and the variety of different interactions makes some characters better suited for certain situations. Crusaders excel at absorbing damage and redirecting it to enemies, while Demon Hunters do large amounts of damage, but are frail.
Statistical choices apply to a broader range of game scenarios than character class, of course. In *The Legend of Zelda*, players cannot choose what job Link has as he moves through the countryside of Hyrule, but his statistical relationship with the rest of the world changes based on item acquisition. Acquiring rupees makes Link a richer character. If he gains enough rupees, he can purchase a Blue Ring that will cut all incoming damage in half. Link thus becomes a more defensively powerful character (though he returns being poorer as a result). In *Civilization V*, players can achieve victory through building up high production and monetary statistics to enable faster scientific growth, thus enabling them to build and launch a space ship. A diplomatic victory derives from building up confidence among other civilizations and independent nation-states through monetary, resource, and idea exchange. Raising the game statistics as a diplomatic power generates more votes in the United Nation to proclaim the player as World Leader, and thus winner of the game.

Statistical choices notably act dependently upon spatial or interactive choices. Spatial determines where a player moves, interactive determines what a player can do once they arrive at a destination, and statistical determines to what extent they can enact a decision. In *Tetris*, the player’s goal is to stack different configurations of four-squared blocks called ‘tetrominos’ into a vertical field without moving past the upper border. Completing a full line of blocks eliminates that line from the board, dropping all remaining blocks to the bottom. Thanks to the orientation of the different tetrominos—two L-shapes, a T-shape, a 2x2 square, two Z-shapes, and a straight line—the tallest area a player can clear at once is four blocks tall, which itself is called a ‘Tetris’. As a purely spatial and interactive design, there is little reason outside of the games randomization of pieces to try to stack up a four-block Tetris. Creating a pattern is riskier than
eliminating one block at a time to keep the playing field empty. A developer implementing statistical choice in the form of a score, however, creates valuation and affects play strategy. A Tetris is worth more points than any other combination of pieces and thus compels players driven by high scores to take greater risks.

Second-Order Choices

Second-order choices occur when developers attempt to implement narrative elements into games that are still explicitly presented in a mechanical fashion. Games in the 1980s and early 1990s faced storage restrictions that limited the amount of text they could communicate to players. The techniques that designers developed to provide players with a greater sense of control over their characters started with simple prompts independent, or seemingly independent, of statistical choices.

Binary Choice: Binary choice simply refers to a choice with two and only two options, each of which provides a different and relevant outcome. Sole dependency on binary choice to deliver an experience occurs heavily in games from the mid-90s and earlier due to the aforementioned space restrictions. Console games also have a higher tendency toward using these choices due to cartridges suffering from lower upper limits to their storage than computers (a Super Nintendo Entertainment System (SNES) cartridge could hold up to 4 megabytes of data, 6 with special expansions, while a computer hard drive in 1991 could range from 20 megabytes to over a gigabyte). Capcom’s SNES RPG Breath of Fire 2 puts the player in the shoes of Ryu, a descendent of a clan of people who can transform into dragons. This clan attempts to prevent the
demon Deathevn from breaching the gate of his prison and escaping into the world. Throughout the course of Ryu’s adventure to solve the mystery of his origins, the player eventually arrives at the prison gate guarded by the skeleton of a great dragon. The dragon, who is Ryu’s mother, offers to try to keep Deathevn sealed in lieu of Ryu venturing into the prison to defeat him. The player receives a yes-no prompt, and if the player elects not to go into the prison, the game ends. Ultimately Ryu’s mother could not hold the demons at bay, and the world perishes. Venturing into the dungeon prevents the destruction of the world at the expense of more combat.

Binary choices do not always have only two outcomes if the underlying system measures the number of choices the player makes. *BioShock* allows players to harvest the resource ADAM from experimental children called Little Sisters. Obtaining ADAM leads to quicker upgrades of abilities, so there is a mechanical component to the decision making, but the Sisters all serve a narrative function—scientists have engineered them to be slaves, and freeing them is a morally good choice. Every encounter with a Little Sister only offers two options: harvest or do not harvest. *BioShock* has three endings, however, based on whether the player harvests all of the Sisters, none of them, or any number in between the two former options. Endings for harvesting all or some of the Sisters do not differ much—Dr. Tenenbaum, who narrates the endings and tries to save the Little Sisters in the game, expresses sadness if only some Sisters die, and anger if they all die. Nevertheless, Binary choice can provide multiple endings based on contextualizing them similarly to *BioShock*.

**Multi-variable Choice:** Multi-variable choice offers the player more than two avenues of decision when progressing through a game’s story. These choices tend to offer players more
detailed information about character personalities, history of the game world, or mechanical feedback that influences further decision making. Multiple different game avenues similar to those of binary choice may open up in multi-variable choices as well, but dialogue trees offer an expanded view of the world at a lower development cost. Later entries in Origin’s *Ultima* series employ multi-variable choice in heavily in their text trees. *Ultima VII: The Black Gate* begins with the main character, the Avatar, investigating a murder in the town of Trinsic. Every dialogue initiated by the player opens up a series of dialogue options, all of which begin with ‘name’, ‘job’, and ‘murder’. Selecting one of these options usually opens up further discussion decisions that inform the player of the state of the world, or provide clues to progress the investigation of the murder.

Bioware overlaps statistical choice systems on top of its multi-variable choice systems. The *Mass Effect* series puts the player in a science fiction world where an invasion of synthetic life forms threatens the well-being of all organisms in the galaxy. A major part of the game involves discussion with all the characters in the game. To supplement the narrative interactions, Bioware designed a personality system that involves taking either Paragon or Renegade actions. Paragon actions are those of an upstanding and just individual, while Renegade actions, while not often outright evil, often defy authority and skirt the bounds of legality. In all three of the games, the same reporter continually confronts the player with loaded phrases and heavy bias. The player can choose to punch the reporter in all three instances, which increases the overall Renegade score. In the first *Mass Effect*, increasing this score to certain thresholds unlocked greater chances at success of intimidation against NPCs in the game.
**False Choice:** False choice presents a situation to a player that appears to be a choice—often binary, especially in the 1980s and early 1990s in console gaming—but ultimately has no effect at all either on the flow of the story or the mechanics of the game. Perhaps the most famous example of this sort of choice occurs in the original *Dragon Quest*. At the beginning of the game, the player begins in the throne room of Tantagel castle where the king issues a quest to rescue his daughter. A yes-no prompt appears on screen, but the game only accepts an affirmative answer. If the player responds negatively, the king will continue to respond with the phrase “But thou must” until the player eventually gives a positive response to the quest. The game employs this technique several times. When the player finally reaches Princess Gwaelin after defeating a dragon, she asks for an escort back to the castle. The yes-no prompt appears again, and once more the game returns an infinite loop of “But thou must” to a negative answer. As previously mentioned, Yuji Horii deliberately implemented the yes-no options in order to prevent putting words in a player’s mouth in regard to providing a sense of control over the narrative. This technique falls flat in that the realization that choices are not real nullifies any reason to respond negatively to choice.

There is an important distinction between false choices and determinate outcomes. False choices are not actually choices at all, but rather shells that appear to offer a choice that developers place on a linear path. If a game offers a choice of two paths, and those paths deviate to provide different experiences before returning to the same outcome, then the choice is not false. TellTale’s *The Walking Dead* adventure game series touts choice and consequence as its core feature, but it left many players accusing it of false choices. In Episode 4 of the series, the player can choose either to save a character named Ben when he falls from a ledge or let him fall
for zombies to devour him. Ben has, prior to this point in the game, acted in a cowardly fashion and proven dangerous to have around, though he has secretly cultivated a friendship with another character. Saving him irritates many members of the group, but Ben will ultimately die in Episode 5 of the series regardless of the player’s past actions. The choice to save Ben is not false just because he dies later; it causes a ripple effect of opinions throughout the rest of the player’s group that alters the way in which the game unfolds. Whether a player finds value in the unfolding is a separate matter from whether the choice provided an actively different experience regardless of outcome. A false choice cannot provide such an experience because there is no alternate path.

**Third-Order Choice**

Third-order choice classification is involves the combination and arrangement of previous choice orders into larger structures. Rather than individual elements, the third order represents methods of layering first and second order choices atop one another to form overarching narrative paths. These classifications have longer-reaching impact across the course of a game by accounting for each choice’s effect on the next choice down the branch.

**Simple Branching Choice:** Simple-branching choices are compound choices, typically composed of binary and multi-variable choices, that lead to differing end states, but ultimately have no impact on other choice trees in the game. Effectively, simple-branching choices may combine additively to produce a different outcome, typically near the end of a game, but never subtract from possible player experiences. *Final Fantasy 6* heavily relies on the player creating
different groups of characters through the course of its story. The game accounts for most permutations of party configurations to provide variations on story sequences. Midway through the game, the villain Kefka rips the world asunder, leaving the party scattered and the player in control of the character Celes. At this point in the game, should the player so choose, only three characters (including Celes) need be recruited to win the game. Finding all of the other characters involves utilizing various forms of spatial, binary, and statistical choices to investigate and interact with them. To finally acquire the assassin Shadow, for instance, the player must first have chosen the ‘yes’ option several times, waiting till there are five seconds left to escape the island from which Kefka breaks the world to ensure Shadow survives. The player must then investigate a cave in the wild plains of the Veldt to find Shadow’s unconscious body (if Shadow previously died, a different character will be in the cave). Shadow eventually recovers, but vanishes. NPCs in the game hint that an assassin has shown up at a coliseum looking for a weapon that happens to be available in the cave where the player finds Shadow. Betting the dagger at the coliseum leads to combat with Shadow, and if the player wins, Shadow finally joins, which in turn opens up access to his dream sequences detailing his past and relationship to another party member, Relm. Shadow’s storyline is self-contained, and only choices made directly within its purview will affect its outcome.

*Infamous* is, over its entire course, one long simple-branching storyline. Cole MacGrath gains electrical superpowers after a courier delivery goes awry and a strange object in his possession discharges, which in turn imbues him with his abilities. The game uses what it calls a karma system by which player decisions guide Cole down either a good or an evil path. Each choice affects the state of the world, but no choice curtails another; every choice must occur to
complete the progression of the plot. Cole may, early in the game, either let a group of thugs take a supply drop of food by chasing off a crowd of innocents, or he may fight the thugs and let the civilians have the food. He may also later disregard the safety of a man while trying to move forward with his mission resulting in the man’s death, or he may convince the man to let him pass. The buildup of karmic choices affects whether the people of Empire City treat Cole as a hero or a villain, but Cole will nonetheless always encounter the man blocking his path in the sewer, or have to decide who gets the food drop. Simple Branching provides players control over a narrow set of options, ultimately resulting in a more linear path through a plot.

**Complex-Branching Choice:** Complex-branching choices constitute branching choice trees that appear similar to simple-branching choices, but whose branches can subtract from one another. A complex-branching structure does not restrict its choice trees to single, self-contained instances. Bethesda’s *The Elder Scrolls V: Skyrim* notably has many quests that, when completed, prevent players from making specific choices in unrelated quest chains. The most prominent choice in the game involves deciding whether to decide with the native Stormcloak faction, or the Imperials who have taken up leadership in Skyrim. Siding with the Stormcloaks means participating in rebellion against the Imperials, while siding with the Imperials means crushing that same rebellion. Likewise, completing the Dawnguard campaign results in the player turning into a vampire lord, but to complete the quest line with the Companions—a group of werewolf warriors—the player must turn into a werewolf. The two forms are exclusive of one another, so a player wishing to remain a vampire is subsequently unable to finish the Companions quest line.
**Implicit Choice:** Implicit choices serve to hide the nature of a choice from a player. In many of the previous choice variants—particularly those that are narrative in nature—players receive notification a game offers a choice. Dialogue prompts explicitly confine players to a range of options that the game can allow in response to a choice. Multi-variable systems such as *Mass Effect’s*, or the interrogation system in the noir detective game *L.A. Noire* offer a limited number of choices tied to mechanical inputs, but more importantly they frame all of these choices as relevant to some sort of character or plot development. *L.A. Noire* only offers the interrogation sequences when investigating a criminal, and since solving crimes is the goal of the game, every interrogation will obviously impact the story’s outcome. *Mass Effect* takes this premise even further by color-coding Paragon or Renegade morality choices that explicitly tell the player which option will progress a moral path, thus leading to the rewards the path offers.

Implicit choices purposefully obfuscate consequence and may even appear as choices unrelated to their ultimate effects. Such choice mimics the ignorance we have of real-world choices, and implementing Implicit choices can produce more organic scenarios than navigating dialogue prompts.

Square’s *Chrono Trigger* famously uses time travel between different eras of a fictional world to tell the story of a band of adventurers attempting to stop an alien threat from obliterating the world. The time travel in the game allows for interaction between past and future generations of characters and iterations of locales. The villainous Magus curses a young warrior named Glenn by trapping him in the form of a humanoid frog. Over the course of the game, players defeat Magus and discover that, though his morality is questionable, he is not so evil as
he originally seems. Nonetheless, the game frames Magus as both a villain and a boss. After his initial defeat, players can encounter him in an earlier time period and fight him once more. The initial choice to fight Magus is Binary—yes or no. If the player has chosen to bring Glenn along, however, he will insist on fighting Magus in a one-on-one duel rather than allowing the entire party to fight. Defeating Magus results in Glenn regaining his human form at the game’s conclusion. Should the player refuse the battle, however, Magus will automatically join the group as a playable character even though the game gives no prior indication that this might happen. Implicit choices specifically rely on a familiarity with the conventions of choice systems in games to surprise the player with unexpected outcomes, or, in some cases, lack of outcome.

A more modern and technologically sophisticated example of implicit choice is Quantic Dream’s Heavy Rain. The game puts the player in control of four different characters who all seek to solve the mystery of a serial killer—a father whose son has been abducted, a reporter working on the story, an FBI agent tracking the killer, and a private detective who is actually the killer covering his tracks under the guise of investigating. Aside from Scott Shelby, the detective, all the playable characters in the game can die at various junctions, thus changing the outcomes of the other characters’ plot lines. There are additionally many small choices that do not have explicit impact on the overall story. Shelby tasks the father, Ethan, with increasingly dangerous trials whose completion reveals clues to the whereabouts of Ethan’s son. One trial involves Ethan having to amputate one of his own fingers. The game presents multiple options for the amputation such as a knife, a saw, a hatchet, or scissors. Players can likewise elect to disinfect the wound, drink whiskey to dull the pain, or use a heated steel rod to cauterize the wound. Each choice changes the way the activity plays out, but only the choice to carry out or abstain from the
amputation has an effect on the overall plot. Rejecting the trial means Ethan gives up a clue to
the whereabouts of his son, but he can ultimately still rescue his son through piecing together
other information. The presentation of this collection of choices does not indicate whether
Ethan’s fingers or the loss of the clue will necessarily have an impact on the final outcome of the
game, however. The point of making choices is—unlike older games which explicitly draw
attention to decision making moments—participating in the actions themselves, leaving the
combinations of outcomes nebulous. Explicit multi-variable choices such as in *Mass Effect* go so
far as representing how a choice will impact the game’s morality system

**Fourth-Order Choice**

Fourth-order choices represent players taking control of their game experience and
making decisions regarding how to play that might be outside the developers’ scope. These types
of choices speak to players’ intentions in their play and are fulfilled using the mechanisms of the
prior orders. Developers have the least amount of control over this order in that they can, at best,
guide the player by providing the interactions that suggest a certain type of fourth order choice,
but cannot directly influence the play behavior or player type that leads to it.

**Exploratory Choice:** Exploratory choice is different from spatial choice in that spatial choice
addresses *how* the game allows the player to move, whereas exploratory addresses *where* and
*why* a player might choose to move a particular place. Games with open worlds such as *Skyrim*
or *Okami* promote exploratory choice by providing players with large spaces full of visual cues
for exploration. *Okami* puts the player in the shoes of Amaterasu (Ammy), the wolf
manifestation of a Japanese god who must lift the curse placed upon the world. Each screen of
the game presents an open space with different environmental clues indicating potential
actions—suggestions that the player should explore and investigate. Cracks in walls indicate that
Ammy can use a bomb ability to uncover secrets, and characters scattered throughout the land
will make mention of the desire to see miracles such as the resurrection of plants or lightning
strikes. Players will not immediately be able to act on all cues, so in addition to prompting
players to look for hidden areas, the game additionally guides players to consider remembering
patterns and to seek out methods to unlock the gates to these hidden places.

Minecraft is perhaps the largest exploratory game on the market, dropping players in an
open and procedurally generated world full of buried sand temples, dungeons, underground cave
systems, small towns, monsters, and resources. The game itself offers little to no direction,
leaving players to not only discover for themselves what the world offers them, but how to
interact with the world itself. Players can discover the interaction between tools and different
types of objects, such as pickaxes and their interaction with stone and ore, which leads to the
acquisition of materials. Experimentation with materials leads to the creation of stronger tools,
thus enabling further and deeper interaction with the world. Better combat equipment means
monsters pose less of a threat, thus allowing players to dive deeper into caves where monsters
abound, but also where some of the rarest materials reside. Exploration begets deeper interaction
with first order choices which in turn allows for even more exploration.

**Constructive Choice:** Constructive choice allows players to reorganize elements of the game
world to fit their own goals. These types of choices most typically come from sandbox-style
environments where players have a variety of first order mechanical choices at their disposal to manipulate the world. Sometimes developers build entire games on top of this sandbox premise, while at others they may incorporate smaller variations of constructive choice into particular areas of a game. Bethesda’s *Fallout 4* puts players in the post-nuclear wasteland of the Massachusetts Commonwealth and tasks them with attracting settlers to various township locations. Players can use materials harvested from the wasteland to build fortifications that fend off attackers and supplies of sustenance and shelter to keep settlers happy and productive. Richer settlements mean the capacity for greater income for the player as well as the potential to install merchants that will provide survival supplies. Building the settlements serves no function to the plot, but creates utility that eases the difficulty of adventuring in the wasteland. Much as with exploratory choices, constructive choices provide long-term strategic benefits by suggesting that players engage with them.

*Minecraft* also heavily utilizes constructive choices; its exploratory nature feeds the need for construction in that day-night cycles and the presence of monsters—especially at night—creates danger for the player left in the open. Death means losing any gathered materials or crafted equipment, so using the environment to create shelter in survival mode is paramount. Small hovels eventually grow into greater fortifications, and the need for resources leads to even more ingenious construction. Water, for instance, will wash away wheat from tilled soil, and wheat is a major component to make bread for staving off hunger. Constructing a wheat field down-hill from a gated water source allows players to wait for wheat to mature, and then open the gate to let the water wash the whole field into a funneled collection area. Constructive choice need not only serve a functional purpose—*Minecraft* also provides avenue for artistic creation.
Players who survive sufficiently might turn their attentions to making more aesthetically pleasing edifices, or might even elect to partake in the game’s Creative Mode that removes all need for survival and provides players with the full array of material types for the purposes of building.

Though I have so far used construction to indicate building in the literal sense, it can also take on a figurative meaning whereby players actually construct new types of play perhaps outside of developer intent or even contrary to the hard-coded rules of the game. *Ultima VII* provides a large amount of freedom in its world, allowing player to move many types of objects around freely. The game also came with typical 1990s PC copy protection to try to prevent piracy in the form of the first town’s mayor. The player arrives in Trinsic and must gather clues to solve a murder, but the city is surrounded by a wall with a closed gate. To leave, the player must answer questions from the mayor that require the game’s manual and map to answer. Correctly addressing these questions is the only way to exit the first city, at least by proper means. By utilizing the game’s mechanics, players can build a set of stairs with crates to walk up and over the wall of the starting city, thus bypassing the intended step of the play sequence.

**Interpersonal Choice:** Interpersonal choice results from the incorporation of multiple players in a game and may take the form of Cooperative, Competitive, or Incidental. Cooperative choice allows players to combine skills to overcome challenges otherwise impossible or difficult to accomplish individually, or simply to enhance a game experience. The rhythm game *Rock Band*, for example, puts plastic, instrument-shaped controllers intended to mimic playing guitar or drums. The guitar controllers have five colored buttons that players must press in rhythmic order, either in varying sequences or simultaneously, in time with color-coded notes that move down
the screen. While a single player can engage on a single instrument, multiple players can take up instrument controllers and fill out the entirety of a song’s instrument line-up (so long as bass, drums, vocals, guitar, and keyboard are the only instruments). Multiple players can earn a higher score on a song, tracked by score multipliers that rise for uninterrupted sequences of a play. Every player’s multiplier adds to the total score, so only full groups will achieve the highest possible scores.

Competitive acts in opposition to cooperative, putting players in contest for victory either directly or indirectly. A game such as the original *Civilization* makes allowances for both direct and indirect confrontation. Two players might neighbor one another on the same continent, eventually expanding into each other’s outermost borders. Such border threats might prompt hostility and military production between the two of them, eventually leading to all out warfare between units until one player emerges victorious, either razing or conquering her enemy’s cities and knocking the losing player out of the game. Victory in *Civilization* does not come solely at the hands of military strategy, however. Two players might neighbor one another—or in fact never meet at all in the game map—but compete with one another to advance scientific progress as quickly as possible. One player will eventually reach the scientific goal of launching a rocket to space by virtue of clever use of resources and win the game without ever setting foot across enemy borders.

Incidental interpersonal choices are perhaps the most counter-intuitive sort. The choice to engage incidentally in interpersonal behavior is passive beyond the initial decision to play the game and requires a space where multiple players congregate, but do not necessarily have to help or hurt one another. *Journey*, an exploratory work by Thatgamecompany, puts players in the
position of exploring a desert world with no means of traditional communication. Players are primarily isolated in their quest, though on occasion the game’s match-making system will introduce another player into the host world. The two players might encounter one another and attempt to communicate through the avatar character’s rudimentary noises, or might ignore one another entirely. The encounter is part of the experience, but is neither necessary, nor intended. Incidental encounters can affect the quality of play, however. World of Warcraft’s constant online nature means players regularly occupy the same space and attempt to achieve the same goals. If a rare monster shows up in the world that drops a valuable reward such as a rare weapon or a mount to collect and ride, one player might see the monster and kill it. The next player might come along hunting for the same monster only to find the body left behind, meaning that the monster will have to respawn before anyone can attempt to gain its rewards. The two players in this scenario are technically in contest of intention, but because of their capacity to be separated and the world’s permanence, there is no systemically enforced competition. The encounter is incidental.

None of these elements is mutually exclusive with one another, even though many games might select one as a primary focus. MMOs typically employ all three subtypes in some capacity to facilitate their game experiences. Players in World of Warcraft or Final Fantasy XIV can gather in groups to complete quests, venture into dungeons, or take on MMOs’ most challenging content, raids. Such multiplayer content is scaled to require the damage output, skills, and healing powers of multiple players to overcome. As such, players necessarily form into regular groups, meet at specific times, practice fight mechanics, and help one another learn for loot and glory. At the same time, multiple groups might compete to beat the newest and hardest content
first. Competition is also built into the games in the form of Player vs. Player (PvP) scenarios where players directly fight one another. Such scenarios can range from small skirmishes in two-on-two or three-on-three fights to be the last team standing, or can grow more elaborate in the form of battlegrounds where whole teams undertake the challenge of capturing a flag or holding a base. The MMO *Guild Wars 2* even allowed three entire servers to fight one another in massive battles called World vs. World in rotating brackets. Then, as previously mentioned, merely being in an MMO space creates the potential for Incidental encounters to occur.

As with the other Fourthorder forms of choice, opting in to the interpersonal means incorporating outside elements that the system cannot control, i.e. other players. Games that support the Interpersonal will frequently make affordances for single player scenarios. The *Street Fighter* series, for instance, will pit a single player against an artificial intelligence in control of an opposing combatant in the absence of a living opponent. Once a second player enters the game, however, the system can no longer dictate any player behavior. The game prior to a second player’s engagement offers the capability of interpersonal choice, but requires a choice outside of the gamer’s internal structure to make it a reality.

**The Taxonomy of Choice**

The above taxonomy, from First-order to Fourth-order, depicts the approaches and techniques developers appear to have used in order to provide player choice. There are three notable trends that occur as the orders increase:

1. Players gain more freedom
2. The developers relinquish more control over the nature of play
3. The capacity to predict outcomes of choices becomes more difficult

In the case of the first two trends, the exchange of control occurs due to the increasingly conceptual nature of the game experience. On the basic mechanical level, developers completely control all aspects of the game either through programming prior to the game’s release, or patches distributed to the software afterward. Players have no control over the numerical balance of a game’s systems, nor do they have access to alter available activities unless they either break into the code of the game or the developers elect to provide it. Stories remain scripted regardless of player input. Branching stories, however, allow players to decide which branches to select, and outside of suggestion through writing, developers lose control to players crafting their own experiences. In the highest order of choice, the developers abandon as much control as possible in favor of players authoring their own experiences.

The shift in predictability occurs precisely because players gain so much choice. A player who chooses to explore and forgets how to progress a game’s scripted narrative might emotionally take the experience as an opportunity to explore the game even more deeply, or might grow frustrated at the lack of direction. A developer has no control over that emotional state beyond what guide posts might exist in the game already. In *Dark Souls*, players must trade souls to a shrine maiden to gain strength, but players can kill the shrine maiden and seal off the ability to grow stronger completely. If this happens after a significant investment of time, a player might lament the difficulty of completing the game in a permanently weakened state as well as the time investment it would take to start the game fresh. The world of *Dark Souls* suggests that every living creature can die if attacked, so if a player assumes otherwise and suffers for his exploratory behavior, the developer can do little.
The taxonomy in this chapter provides the types of choices players can make, but as earlier mentioned, all elements of a game are engineered. The above scenario in *Dark Souls* happens because players have a variety of types of choice, but in isolation those choices alone do little; the choice to attack the shrine maiden requires the consequence of her death, which in turn requires the internalization of the causal relationship between action and reaction to fully create an experience. In the subsequent chapters, I will take this taxonomy and examine its relationship to the implementation of consequences in the game world, and how the causal relationship between choice and consequence relates to the formation of identity in the game space.
The implementation of choice in video games offers the means of taking action and exercising player will in a game world, but choice alone does not create the aggregate game experience. Even in the real world it is not only choice that creates experience, but the consequence of choice that enables us to internalize and analyze the choice’s meaning. Without consequence, choice is an action in a vacuum, an undelivered message nonetheless awaiting response. The relationship between choice and consequence generates a sense of control for the player—the “satisfying power to take meaningful action and see the results of our decisions and choices” (Murray 126) that ultimately makes the player an agent of change in the world. Agency has recently been a fundamental concern of video game academics and developers alike, favored and examined for its capacity to invoke a sense of ownership and belonging to a virtual space.

Agency

Mary Flanagan and Helen Nissenbaum broadly define agency as “manifesting the value of freedom” (102) when discussing video games’ capacity to shape values and create emotional impact, but this broad definition oversimplifies agency’s function. Agency as a concept does not originate solely in video games; its roots belong in the philosophical and sociological spaces. In Plato’s dialogue *Phaedrus*, Socrates says to the titular character that “every bodily object that is moved from outside has no soul, while a body whose motion comes from within, from itself, does have a soul”. Though Plato’s discussion moves into discussions of love and immortality, the core of his sentiment is that independent, willful actions are inextricably tied to life. Importantly,
he notes that the inability of an object to act with will indicates a lack of life. Tacit in this statement is the implication that there is a relationship between the sentient agents and the objects; to be an agent of one’s own will means having the capacity to enact that will upon the objects in order to influence the surrounding environment. The argument also precludes any incidental action from constituting agency, “that is, if someone causes something to happen, that person is not an agent (even if they are a cause) if they do not know that they have caused it to happen” (Gallagher 177). Modern social cognitive theory adopts a similar and more detailed perspective: “to be an agent is to influence intentionally one’s functioning life and circumstances. In this view, personal influence is part of the causal structure” (Bandura 164).

Psychologist Albert Bandura breaks down agency into four core properties: intentionality, forethought, self-reactiveness, and self-reflectiveness.

Intentionality, by Bandura’s definition, is the formation of “intentions that include action plans and strategies for realizing them” (164). Acting in and of itself is not a sufficient indication of agency; a strike to the knee causes a nervous twitch in the leg thanks to electrical signals, but is devoid of any conscious reason. The Japanese dish Odori-don creates movement in a similar fashion: soy sauce is poured onto a dead squid, and the salt in the sauce causes an electrical reaction in the squid’s muscle cells and the tentacles move on their own. Such a response is equivalent to the knee reflex test in mechanical functionality and illustrates that a creature need not even be alive for movement to occur. Without a conscious direction of action, movement alone cannot make an object an agent. Bandura thus sets forth intentionality as the first component of agency because it gives reason to movement, and does so from within the actor. It is important to note what appears to be a difference, here, between Bandura’s use of
intentionality and the phenomenological use. Intentionality as proposed by Franz Brentano in *Psychology from An Empirical Standpoint* concerns the direction of consciousness:

> Every mental phenomenon includes something as object within itself, although they do not all do so in the same way. In presentation, something is presented, in judgment something is affirmed or denied, in love loved, in hate hated, in desire desired, and so on.

(92)

A mind, in this phenomenological sense, inherently provides an object as the focus of all its activities. Intentionality is not to be confused with pure intention, which is a “specific [state] of mind that, unlike beliefs, judgments, hopes, desires, or fears, play[s] a distinctive role in the etiology of actions” (Jacob). Intentionality is a fundamental trait of consciousness, whereas intention, in this sense, refers to a construct of ideas and thought processes that might lead to action. Bandura’s definition on first examination more closely resembles a conflation of intention and intentionality rather than a purely philosophical view. He does appear to use intentionality at least partially in its phenomenological sense as he explains the next component of agency.

Forethought, on its face, seems as though it might be a form of intentionality, given that Bandura’s definition of the latter involves action plans. He differentiates the two concepts with temporality, however, which also serves to crystalize his use of intentionality as phenomenological. Whereas intentionality concerns the present, forethought is a form of “anticipatory self-guidance”. The future cannot “be a cause of current behavior because it has no material existence,” (164) so it follows that forethought serves as a cognitive structure humans create to enable a plan of action. There is notably no action in forethought per this description—
forethought is a precursor to action. Actors envision an end goal and mentally develop a series of actions toward that goal which ultimately provides “direction, coherence, and meaning to one’s life” (165). In effect, forethought is a method of hypothesizing the possibility of gaining meaning. This issue is particularly noteworthy since the attainment of meaning is a fundamental question in the video game world—i.e. what is and can we achieve deeper meaning in games. As noted earlier, Jesse Schell posits that good games give players meaningful choice, which by Bandura’s components also suggests that good games impart agency. Murray’s own definition at the beginning of this chapter indicated that meaningful action is the foremost quality of agency. Salen and Zimmerman say meaningful play “occurs when the relationships between actions and outcomes in a game are both discernable and integrated into the larger context of the game” (31) which illustrates forethought; meaning comes from having a predictive understanding of the outcomes that allows players to create action plans for achieving desired outcomes.

Karen and Joshua Tanenbaum go so far as to express that agency in video games is a commitment to meaning itself rather than purely the capacity to exercise freedom. Commitment to meaning, in this perspective, means a player makes actions with specific outcomes in mind. In Bioware games such as Mass Effect or Dragon Age, for instance, players make narrative choices using a wheel that presents different options. The main characters in these games will act or speak according to the wheel, so if a player exercises agency by selecting an aggressive response, she commits to influencing the environment through aggression. The meaning in this situation derives from the resolution of the action representing an accurate manifestation of player desire. Focusing on meaning, they argue, “shift[s] the emphasis in interaction away from the outcome of choice, and toward the intent which underlies that choice” (Tenenbaum 7). Their
argument conflates forethought and intentionality as per Bandura’s definition of agency. The actions players take in this perspective inherently carry forethought with them in that the Tanenbaums assume all player actions have a plan in mind based on perceived future outcomes. In fact, the Tanenbaums not only combine intentionality and forethought, but also the Bandura’s third facet of agency, self-reactiveness.

Self-reactiveness finally brings about the realization of action as agents demonstrate “the ability to construct appropriate course of action and to motivate and regulate their execution” (Bandura 165). Intentionality creates focus for consciousness, forethought allows for hypothesis and extrapolation toward the fulfillment of that focus, and self-reactiveness grants the motivation to execute the entire process. The execution of action in itself is multi-faceted as John Searle points out in *Rationality in Action*:

> If I vote by way of raising my arm, the relation is constitutive . . . in the case of the by-means-of-relation, the relation between the components of the action is one of causation: flipping the switch causes the light to go on. (52)

Humans have multiple avenues of acting based on the fact that they do not, by-and-large, act in a vacuum; “most human pursuits involve other participating agents, so there is no absolute agency” (Bandura 164). Social structures lead to the construction of different meanings, and every actor within that web is pulled or influenced by the consequences of other actors’ actions. Causal actions are simple relationships as in Searle’s gun example, while constitutive actions develop as a function of complex social and physical relationships. Raising a hand in and of itself is nothing more than the action of raising a hand. The underlying intention to vote by
raising a hand only emerges because, in the social context of a vote tally, a raised hand constitutes a vote; the action is representative of a non-related concept.

In game studies, self-reactiveness tends to take the forefront in discussion of agency. The previous two components only deal with the organization of consciousness into the impulse to act; self-reactiveness is the first actual, realized action. As I addressed in Chapter Two, choice is the foundation of interaction in video games according to scholars and developers alike. Choice is likewise a part of the play experience, which “transcends the immediate needs of life and imparts meaning to [action]” (Huizinga 1). Roger Callois says of play as a whole that

As an obligation or simply an order, [play] would lose one of its basic characteristics: the fact that the player devotes himself spontaneously to the game, of his free will and for his pleasure, each time completely free to choose retreat, silence, meditation, idle solitude, or creative activity. (6)

Callois presupposes intentionality and forethought, driving straight for the freedom to act as a basic element of play—that is also a part of Murray, Nissenbaum, and Flanagan’s respective definitions of agency.

Bandura’s final component is self-reflectiveness, by which agents “are . . . self-examiners of their own functioning. Through functional self-awareness, they reflect on their personal efficacy . . . and they make corrective adjustments if necessary” (165). Self-reflectiveness closes the circle between one action and the next. After creating a plan and carrying out an action, an agent considers the consequences of that action in order to incorporate them into the next potential actions. Huizinga connects play to reflection when he says that
in the twin union of play and culture, play is primary. It is an objectively recognizable, a concretely definable thing, whereas culture is only the term which our historical judgment attaches to a particular instance. (46)

The coalescence of action into a network of meanings that might organize into a greater culture comes from our agentic capacity for self-reflection. In any voluntary and intentional action, humans create causes and effects that, when reflected on, produce larger patterns we can organize into culture. The taxonomy of choice in the previous chapter itself demonstrates patterns in the video game world.

The false choice we see in *Dragon Quest* due to technological limitations involving space shows up in many other RPGs from the 8-bit era of gaming and beyond. *Chrono Trigger*, *Super Mario RPG*, and *Breath of Fire* all pose false choices, as do the Playstation RPGs *Wild ARMs* and *Suikoden*. Every instance arrives in the same fashion; the developers, playing at providing choice where there is none force, the player to eventually acquiesce to the game’s offered decision by trapping them in a dialogue loop if he refuses answer correctly. The developer and player communities are aware of the existence of this construct and, through reflection, have adopted it as a cultural component. Self-aware developers such as those at Silicon Studio incorporate the element into their games as a cultural reference. Silicon Studios’ *3D Dot Game Heroes* incorporates many such elements, but particular to this example provides a false choice that even goes so far as to respond “But Thou Must” just as in the original *Dragon Quest* should the player turn down the king’s request.

Not all approaches to agency and behavior follow Bandura’s exact subdivision of agentic components. Don Norman, whose fields include design, usability engineering, and cognitive
science, provides similar elements to Bandura’s agency, but attributes consciousness differently across them. These differences occur at least in part because of Norman’s design background, where he concerns himself with reactions to the usability of an object rather than the broader meaning of consciousness and action as a whole. In *The Design of Everyday Things*, Norman breaks down the cognitive process into three responses: visceral, behavioral, and reflective. Visceral responses, he argues, are automatic and reflexive, though still relevant because they are “all about attraction or repulsion” (51). The behavioral is likewise subconscious, though it is home to learned processes and skills, indicating some sort of intention to the behavior that triggers action. The behavioral level finds a home in Bandura’s classification as a mixture of intentionality, forethought, and self-reactiveness. The action is not reflexive, so it has intent; the actor uses forethought to establish the correct action plan and draw upon the proper learned skills; and finally, the actor executes the action. The reflective level, then, is the “home of conscious cognition . . . where reasoning and conscious decision-making take place” (53).

The reflective level shares terminology with Bandura’s self-reflectiveness, but the two types of reflection differ. Bandura sees reflection as wholly encompassing of evaluative behavior, calling it the “most distinctly human core property of agency” (165). Norman might agree that reflection is at the core, but he includes immediate feedback as part of the behavioral level rather than the reflective. Because Norman defines his behavioral level as a place where learned processes trigger in response to stimuli, all events incite expectation. Subsequently, “the information in the feedback loop of evaluation confirms or disconfirms the expectations, resulting in satisfaction or relief, disappointment or frustration” (52). A process such as driving through an intersection, in Norman’s understanding, is behavioral as a result of having reflected
on the consequences of driving through the intersection based on all the current road conditions such as speed, traffic, the current state of the traffic light, etc. All of this evaluation has previously happened and encoded into a behavioral response, leading to perhaps a leisurely cruise through a clear intersection, or a tense race to beat a red light. Bandura might view the entire process linearly. The intention to cross the intersection leads to the forethought of an action plan, then the act itself of speeding up or slowing down. Reflection then allows for evaluation of the efficacy of the action, which feeds back into the next intention and forethought phase at the next intersection.

Though the two approaches differ, they both ultimately arrive at a loop of cognitive response that constantly builds upon itself to inform future actions. The need to act upon a stimulus leads to some combination of cognitive events, whether learned or consciously preconceived, that spur an action to accomplish a goal that can later be evaluated. It is this loop, for the purposes of the following section, that I will use to constitute a basis for the discussion of consequence design. There are a variety of different interpretations of agency, but the loop resulting from the mixture of Bandura and Norman’s descriptions is particularly well-suited to video game discussion. Norman’s perspective represents one of practicality in design, which game developers must implement in order to provide a functional representative experience to the player, while Bandura’s presents the human internalization and processing of decisions made in the provided game space. I do not exclude other types of agency discussion because they are invalid, but rather because these two most suitably fit the dichotomy between player and developer, and likewise suitably fit into the broader discussion of agency among game academics.
Creating Agency Through Consequence

As established in the simulation chapter, games are completely representative constructs. Likewise, my chapters on choice laid the foundation for the processes by which developers represent the act of choosing through a hierarchy of mechanisms that do not necessarily synchronize with real-life choices. When Murray says that seeing the consequences of our decisions is the essence of agency, she bypasses the point that, just as developers engineer choice, they must also engineer the responses to that choice in order to fulfill the cognitive agency loop. As Miguel Sicart points out, the rules of a game “create affordances and constraints for interaction. The affordances of a designed object optimally show how the object should be used, what its properties are” (56). Affordances, he explains, are “those design elements that narrow any action the player can take” for the purposes of creating certain experiences. This concept plays into the idea of consequence in that affordances act as scaffolding constructed by developers that frames exactly what choices the player can take. Sicart refers specifically to more obvious elements such as environmental objects that guide players to certain kinds of action. A stone in the middle of the road in The Legend of Zelda: A Link to the Past, for instance, could act as a diversionary obstacle, forcing the player to find a path around it. With the power glove, Link can lift the rock, so the presence of the stone might prompt the player to find the glove, or to lift the stone if the he has already found it. Enemies cannot move through the stone, so it might act as a barrier should the player get into trouble.

Sicart’s concept of affordances is player-centric, and understandably so; his discussion is in the greater context of players acting as ethical agents. Much like developers and academics take choice for granted, though, he takes for granted the fact that agents can act in video games,
and can therefore be ethical bodies. His point about affordances touches on the deeper point of consequence, however, when he acknowledges that level design can influence behavior. For there to be level design, there must be a level designer, and the designer engineers the possible uses of the level. Don Norman confirms as much in *Emotional Design*:

> In most behavioral design, function comes first and foremost; what does a product do, what function does it perform? If the item doesn’t do anything of interest, then who cares how well it works . . . so the very first behavioral test a product must pass is whether it fulfills needs. (70)

Game design in this respect is no different than a product. John Carmack, lead programmer and co-founder of id Software, agrees with this sentiment when he says “the game designer shouldn’t be making a world in which the player is just a small part. The player’s the boss; it’s [the designer’s] duty to entertain him or her” (Antoniades). Game elements should feel relevant and impactful to the goals of the game for players to feel they have control. If the purpose of a blanket is to be comfortable, then for the blanket to be used for its intended purpose, it must be comfortable at least to the majority of users. Similarly, for a weapon to be useful in a game, it must be strong enough to meet the challenges the game sets forth, or must have some ancillary purpose such as equipping a buckler in *Dark Souls* to support more powerful weaponry by making parrying attacks easier.

The chief difference between a blanket and a virtual buckler, however, is that no one has engineered a human body to feel pleasure from certain types of fabrics or to regulate heat at the ideal rate to make the blanket viable for warmth. The real world design process is primarily reactive. People are cold or like the feel of being wrapped up due to a variety of factors out of a
designer’s control. Metabolic rates, for instance, might determine how naturally warm or cold a person is, or the time of year and location on the planet impacts the temperature of a house. The designer sees these factors and responds to them. In the case of the video game, there is nothing to start with. The buckler, the attack, and the numerical relationship between them are all designed on paper before it becomes a digital reality. Even then, many possible tweaks may occur before the system ever touches a player’s hands. The buckler itself in *Dark Souls* has weight, durability, stability, damage reduction, damage, statistical scaling, and statistical requirement components. All of these components numerically relate to all of the other fabricated systems in the game. Weight, for instance, derives from the total weight values of equipped gear, and at certain thresholds slows movement speed. The buckler is a light shield. A player might not use the buckler for its speed in parrying, but to maintain some level of defense while keeping the weight threshold at an ideal spot to keep other items equipped. The systems all inter-relate just as the heat regulation system of the body interacts with the material of the blanket, but a video game designer can immediately change a variable on either side of the product-user interaction and completely alter the experience at a whim.

As Salen and Zimmerman say, “the *meaning* of an action resides in the relationship between action and outcome” (157), so for choice to ultimately have meaning, the outcomes must be designed to create a sense of accomplishment. Each taxonomic choice type depends on its own type of consequences to afford a player control over the world.
First-Order Consequences

Since mechanical choices are largely control-oriented, their consequences are conceptually simpler, though often less narratively impactful. Player control and interpretation of first order choice is under the most strict developer control. All of the internal systems of a game, provided there is nothing broken, are hard-coded before release by developers, and as such players cannot access them to change them. Mario in Super Mario Bros. always has the same maximum jump height, the same maximum velocity, the same acceleration, etc. Spatial consequences all fall within the vein of the Mario example. The consequence is always a function of whether or not the player can arrive at a certain point in space. Typically, the fewer the spatial consequences, the less control the player ultimately has over the world. In Pong, the only type of motion available is to move the paddle up and down; there is no lateral motion. As a result, the only spatial consequence of movement is whether or not the paddle did, in fact, move up or down.

Interactive choices likewise come with fairly simple consequences, though they are often complicated by the execution of the choice. The primary consequence of an interactive choice is whether or not the interaction executed. In games with few interactive choices, the available choice typically defines the nature of the game. Pong has two possible interactive choices: whether or not to hit the ball, and whether or not to put English, or spin, on the ball. The former choice determines victory in the game provided the opposing player misses a return, and the latter exists purely to assist with hitting the ball. Spin makes the trajectory of the ball less predictable, thereby creating a more difficult shot for an opponent to intercept. With no other interactive choices provided, Pong offers few opportunities to deviate from its play style. The
Legend of Zelda contains far more interactive choices. Link’s methods of interacting with the world are dependent upon item collection, so item acquisition in itself is an interactive choice. A player can purchase keys or find them in dungeons. Combat is a major focus of the game with enemies appearing on nearly every screen, but the different items provide subtypes of combat: a boomerang stuns creatures leaving them vulnerable to attack; bombs create a localized explosion that is powerful, but stationary; the sword is strong, but only effective at close range. These varied interactions create more routes for players to take when deciding how to play a game.

Statistical consequences occupy a unique space in the first order of choices. There are explicit statistical choices that players make to impact their statistical relationship with the world. As mentioned in the choice chapter, one of the most prominent of these choices comes in the form of choosing character classes like fighter or mage. A deeper version of the character class that frequently shows up in RPG and adventure games is the character attribute. Selecting an attribute to change such as strength for the hero in Dragon Quest VII alters the internal calculations the game uses to determine damage done with melee weapons. Players can use a special item called a strength seed to alter this directly or can indirectly alter the attribute by changing to a class like Fighter or Gladiator. These classes have statistical growth curves that favor strength as players gain experience points. Past pre-determined experience point thresholds, characters increase to the next experience level and go through an increase in attributes according to their class’ growth curve. The immediate statistical consequences of this nature are typically visible via a status screen of some sort that shows the numerical increase, and later in a situation such as combat where the damage numbers visibly increase.
The unique nature of statistical consequence is that they do not necessarily have to appear readily apparent to players. The underlying numerical system mentioned above is a fundamental element of most RPGs, but all games use numerical interactions to determine game consequences. The physics of a game like *Super Mario Bros.* includes values for gravity, acceleration, deceleration, ricochet, and a host of other components that players never directly see. When Mario jumps, he does so with a pre-defined upward velocity, reaches the programmed maximum height of his jump, and then falls back to the ground with an acceleration representative of a gravitational force. The interactions between these numbers govern exactly what degree of impact the player can have or how well an interactive choice works, thus serving to inform the player whether the choices are functional and worth repeating.

**Second-Order Consequences**

The systemic nature of the First-order accounts for the nuts and bolts of game functionality and player interaction, and the second order attempts to configure those systems to deliver story. The nature of Second-order choices is that they are the building blocks of larger narrative frameworks, or they offer illusory control in a world that cannot technologically provide multiple options. As a result, consequence for these choices can be conceptually abstract (e.g., the vague sense of control in a false choice even though there is none) or have no numerically quantifiable impact (e.g., the consequence of Mario jumping has definable numerical relationships to the game, but it is hard to quantify the emotional impact of seeing *Breath of Fire 2*’s good ending instead of its bad ending). In early games, chiefly console games from the 1990s and earlier, these consequences attempt to elicit a sense of player control in
fundamentally scripted experiences. This is not to say that modern or more complex games do not utilize this tier of choice, but they are frequently wrapped in larger experience where they either serve as a link in a chain of choices that create a narrative, or exist in small pockets of the game space alongside longer chains.

False choice consequences are the simplest in that there is effectively no in-game consequence at all beyond the initial rejection loop. A player selects the incorrect answer to the question prompt, but the game is only programmed to move forward upon selection of the correct answer. Virtually all of these consequence types occur in exactly the same way. In Star Tropics, an NES game where the player finds herself controlling the character Mike searching for his uncle across tropical islands, the story of the game requires finding a missing dolphin to move forward. Refusing to find the dolphin leads to a similar dialogue loop as the example of Dragon Quest’s king demanding the return of his daughter. Occasionally the acceptance loop is embedded into gameplay rather than dialogue such as in Super Mario RPG, where, in order to leave the town of Marrymore to return to the Mushroom Kingdom, the player must guide Mario and his party through the southern exit of town. Attempting to exit through the northwest gate results in the party stopping and mentioning they should leave in the other direction.

This scenario is an application of a First-order spatial choice layered into a false choice as indicated by the text for the sake of delivering a story experience; the southern exit is technically the proper geographical exit to take to get back to the Mushroom Kingdom. The game, however, uses an overworld map when players leave town or dungeon areas, so in reality either exit would take the player to the overworld map with unrestricted navigation. There is still, in all of these scenarios, a potential sense of place in the world. Though there is no other avenue of action in
false choice scenarios, the result of making the choice is representative of real-life scenarios where people might feel compelled to continue actions they might otherwise abandon. The need to pay bills and eat, for example, keeps people returning to a job over and over because of the interconnected systems of economics and the capacity to self-sustain. Assuming a person wishes to continue living, he will require food, which requires a means of income. The macro-scale choice here is similar to that of a game: if the player wishes the game experience to continue, he has to continue according to the desires of the in-game entities. The imperfection of the False Choice is that the consequence to it—the endless dialogue loop—is unrealistic and cannot account for the variability in actual human reaction to constant refusal.

Binary consequences move beyond false consequences and actually provide two different paths to their respective choices. These consequences begin to express actual, controllable differences as a result of making a decision, but likewise require more effort to construct. Every variation requires unique dialogue, computer scripting, design elements, and even potentially different visual or audio assets to create a different scenario. The bad ending in *Breath of Fire 2*, for instance, that results in the destruction of the world leads to a unique visual scene of the catastrophe that is only accessible through refusing to descend into Deathevnn’s prison. The image is unique to refusing destiny, and has other dire implications as well. The dragon protecting the gate is the main character Ryu’s mother, meaning that rejecting heroism also creates a scenario where the player is responsible for perpetuating the burden of the martyr Ryu’s mother bears.
The other side to this decision involves going down into the prison, finding a settlement within, and ultimately confronting Deathevn himself. The dungeon requires a tile set and background art, the characters in the settlement require sprites and dialogue, treasure chests require items and equipment balanced to the difficulty level at the end of the game, and new enemies require skill sets and artificial intelligence to control their actions. Players will experience none of the former elements unless they make the decision to go into the prison.

Binary consequences are often, especially in older games, unequal in their impact. Though players see the unique ending sequence for selecting the bad option, *Breath of Fire 2*’s bad ending pales in comparison to the depth the good ending delivers. When a bad option results in death or loss, unless the game continues beyond the choice, players will always experience less content than if they selected the better option. Refusing to engage with binary choices can sometimes result in a complete loss of content experience. In the Super Nintendo action adventure game *Illusion of Gaia*, the player can collect red jewels across the game world. The
only choice the player has is to give the jewels to a character named Gem, who in return offers the character restorative items and statistical upgrades. Should the player turn in all fifty jewels, Gem reveals his true form is that of a metallic mantis monster and the game sends the player to a hidden dungeon to fight it. Refusal to engage in the exchange denies the player access to both the bolstering items Gem offers and a dungeon. There is no alternative should the player elect to ignore the jewels.

Multi-variable consequences do not often appear much different than binary consequences aside from having multiple options. Much of the growth of the second tier of choices occurred during the 1980s and 1990s when space limitations impacted how much variability a game could provide, so early uses of multi-variable choice often leads to the consequence of learning more about the game world. *Ultima VII’s* multi-variable dialogue trees, for instance, primarily relate new information about a town or a person unless the player speaks to a plot-central character. The agency that multi-variable consequence grants often falls within a roleplaying realm, allowing the player to mold the way her character appears to others and likewise how they view her character. Non-plot relevant dialogue in the *Dragon Age* series, especially in the second and third iterations, builds character identity much in the same way as *Mass Effect*, only instead of a paragon-renegade system, the supporting cast likes or dislikes the main character based on each character’s personal preferences. Multi-variable consequences can certainly be plot-relevant, though they often appear near the end of a game to limit the number of plot variations that can occur. In *Deus Ex: Human Revolution*, the player controls Adam Jensen, a high-value security officer injured in a terrorist attack who receives cybernetic augmentations to save his life. The game revolves around the ethics of transhumanism and deals with
conspiracies regarding the corporate control and misuse of the augmentations. At the end of the game, the player is given the option to broadcast a conspirator confession to ensure the banning of augmentation, to blame an anti-augmentation organization to ensure future technological development, to blame bad immune-suppressant drugs and ensure regulation on augmentation, or to destroy the facility Jensen is occupying to absolve him of the choice all together. These four options come in the form of selecting one of three panels or moving to the self-destruct mechanism. The choice is outright and obvious, demonstrating little nuance in its presentation.

**Third-Order Consequences**

Since Third-order choices involve the combination of multiple variations of Second-order choices, their consequences are far-reaching across the narrative arcs of a video game. Third-order consequences do not appear immediately, but are rather identifiable at their end points when the collective outcome of multiple choices resolves into a narrative experience. Simple and Complex branching paths do not have markedly different consequences beyond the core definition of the choice type: Simple branching paths do not interfere with other branches, and Complex paths do. The ending to *Planescape: Torment* contains a great many branching paths in its dialogue alone. Throughout the game, the player controls The Nameless One, a man with no memories save the tattoos on his back who resurrects every time he dies. People in the world know him, but always seem tentative. In his quest to uncover his identity, he discovers that his original incarnation had mortality stripped from him to prevent damnation and that his resurrections often reset his memories and personality. That mortality, known as the
Transcendent One, has grown sentient in the ages past separation and wishes to remain independent.

The final sequence of the game takes on many different forms based on the way the player has acted. Prior to confronting the Transcendent One, The Nameless One encounters three of his previous incarnations, all of whom he can try to reabsorb into himself. Should he have high enough statistics, he can successfully absorb all of them, further bolstering himself. Failing with one incarnation results in being absorbed himself and the game ending, and failing with another results in a combat sequence. After these confrontations, the final encounter with the Transcendent One begins. Depending on statistics, prior conversations with characters, and even items in the player’s inventory, the game makes different dialogue paths available, some of which lead to absorbing the Transcendent One, and others lead to combat. The Nameless One can even threaten to will himself out of existence with high enough wisdom since his existence is inextricably tied to The Transcendent One. In combat, The Nameless One can trick the Transcendent One into resurrecting a party member to aid in the fight, or he can do it himself. Two of the potential combat partners also gain more strength in the fight if the player has completed other quest lines involving them.

Implicit consequences likewise look like a cohesive whole once the player has completed a chain of events. In an attempt to approximate real life, however, implicit consequences do not necessarily provide players with the understanding that he is taking a consequential action. In *Planescape: Torment,* most of the final sequence takes place in dialogue boxes where the player selects the desired option to guide the outcome—there is a system in place by which the player knows he is making a choice that will lead to a response, so he can internalize this idea and
potentially chart out other responses. He also knows that, because the game turns the focus to such a choice delivery system, the choice he makes in the text window will likely impact the outcome of the game. Implicit choices obscure this, so it is often possible for the player to not understand which decisions led to a given outcome. *Until Dawn* on the Playstation 4 puts the player in control of eight teenagers separately over the course of a trip they take to a mountain cabin. Two intersecting storylines—one of wendigos prowling the mountains and the other of the ninth teenager, Josh, trying to get revenge on his friends for a prank that led to the loss of his sisters—put the group at the heart of a horror story. Interaction consists of movement and pressing button prompts, similar to *Heavy Rain*. A wendigo grabs the character Jessica in chapter four of the game and her boyfriend, Mike, runs after her. The player can guide Mike safely through the obstacles or can risk his health by taking shortcuts. If the player takes too long to get Mike to Jessica, he will find her dead in the elevator shaft to an old mine. The game provides no timer for this, only the consequence of being too slow. While a player can surmise that taking the shortcuts might have saved her, there is no indication of this ahead of the event.

**Fourth-Order Consequences**

Consequences of Fourth-order choices are difficult to define. In this tier developers relinquish the most control, and though they may engineer consequences, player ingenuity often supersedes developer intention. The interpersonal choices in MMOs like *World of Warcraft*, for example, prompt players to cooperate or compete, but there is no way to enforce that behavior. Two characters from opposing factions might encounter one another and, rather than fight with one another, use the dance command to make their character models dance. This action serves no
function beyond player gratification. Technically, the factions in *World of Warcraft* are always at odds with one another and, on a Player vs. Player server where faction combat is always enabled, even an accidental touch of button will initiate an attack on an enemy player. The mechanics of the game push opposing players toward combat, but players can resist. Conversely, players on the same faction may act against one another even when they should cooperate. In a raid where players band together to fight large bosses, three role types come into play: tank, damage, and healer. Tanks occupy the boss’ attention since they can absorb the most damage, damage dealers attack the boss, and healers keep everyone alive. If a damage dealer decides to shoot the boss before the group is prepared, members of the group might die, thus costing time and resources. None of this behavior is within the control of the developers—they can, by game design and instruction suggest the proper course of action, but that does not guarantee that players’ goals will align with the vision of the design.

Exploratory and creative choice are likewise uncontrollable. A developer can try to build an interesting vista or locale, or give players tools, but nothing guarantees player cooperation. *Minecraft* started as a game where players built shelters, mined for blocks, and built larger structures. Over time Mojang added new features to their game that broadened its capabilities, including adding an object called Redstone. Redstone acts as a signal carrier similar to a wire delivering a voltage. By configuring redstone with a power source, players can build opening and closing doors or power lights. These simple projects pale, however, in comparison to the actual power of redstone. Players can build complex computational devices like calculators with the material, effectively building a computer inside a game running on a computer. Paper and quills in the game create the potential for leaving behind written records or stories, players can attack
one another, and control blocks allow for teleporting objects and running scripts. *Minecraft’s* embrace of Fourth-order choices make it more than just a game, but a miniature development engine should players engage deeply enough with the system. The consequence of fourth order can be so extremely out of developer control that it is little different than handing someone wood and nails and telling her to build whatever she wants.
CHAPTER 5
IDENTITY AND PLAY

Choice and the agency it affords are fundamental tools that developers use to create a sense of control for the player, but identity ultimately ties the two together. The learning experience of engaging with the choice-response-consequence structures in video games informs a player’s understanding of the game world. This understanding then subsequently impacts a player’s approach to the next decision, which then continuously fuels future choices and re-incorporation of consequences into identity. Effectively, as James Paul Gee says in *What Video Games Have to Teach Us about Learning and Literacy*, “when people learn to play video games, they are learning a new literacy” (13). Gee uses literacy, in this context, not to describe traditional literary reading, but as a descriptor of ability to move through and understand a given media format. More important in his statement is his use of learning, which suggests that there is a process involved in a player absorbing information that alters that player’s capacity to navigate the game space.

Salen and Zimmerman characterize this learning process most simply as a “system of experience that always includes some kind of sensory input, player output, and internal player cognition” (316). This system of information processing reflects the choice-agency-identity relationship, though it lumps certain elements together. Sensory input represents the experiences and choices the game offers the player. Player output represents the player leveraging the capacity to act upon the world, which derives also from the identity of an agent within the space. The consequences of those actions then come into play in internal cognition, where the player absorbs the lessons of the consequences into a new, modified identity. The loop then continues
until play ceases. Gee confirms the core of this process when he says that “all learning . . .
requires identity work. It requires taking on a new identity and forming bridges from one’s old
identities to the new one” (51). In the case of video games, such identities take on a particular
format unique to the interaction the medium affords.

Gee classifies identities in three ways: virtual, real, and projective. Virtual, he argues,
represents the actuality of the player character or avatar in relationship to the game world itself.
His example regards the role-playing game *Arcanum: Of Steamworks and Magick Obscura*
wherein the player creates a character in a world full of Tolkienesque races that has developed
within the steampunk aesthetic (steam and complex gear, hose, and gauge systems take the place
of traditional fossil fuel technology, and cultural attitudes and fashions within the world are
Victorian in sensibility). The player begins the game by surviving a zeppelin crash at the hands
of Half-Ogres in assault planes with only a strange quest from a gnome to deliver a ring. Gee’s
character is that of Bead Bead, a Half-Elf. The nature of the character, in this argument, has
ramifications in the game beyond Gee’s control. Though Gee picked a Half-Elf, he has no
control over the statistical traits of Half-Elves as *Arcanum* presents them. This race does not
handle machinery as well as others, nor is it as hardy, but it is quicker and more beautiful. Within
the narrative of the world and the numerical systems of the game, Bead Bead will naturally be
better at persuasion to complete tasks regardless of how Gee might choose to build her. Though
players in *Arcanum* can choose to build characters up through gaining experience and allocating
points into differing skills, the core relationships will never change (e.g., Gee could put points
into arming traps, but that is a technological skill and will thus never be as strong for an equal
amount of effort as a dwarf character).
In Gee’s example, he has selected a role-playing game which provides a substantial amount of control over character creation. In essence, the level of control in such RPGs is the most extreme end of blurring the virtual identity into the real and projected. Games that afford less control create stronger virtual identities. *Arcanum*’s main character has no audible voice, only the tone of the text. Even that text has various options that allow malleability of identity at a player’s whim. Dante from the *Devil May Cry* series has a defined personality with which the player has no choice but to engage in order to experience the game. Dante is the son of human and the rebellious demon, Sparda, who sealed away the demon lord Mundus. Every component of Dante’s design depicts style, ego, and a cartoonish lack of concern for danger. For a man who fights demons for a living, Dante shows little caution with his attire, dressing in variations of a maroon trench coat, matching pants, black leather boots, and fingerless gloves, while his contrasting white hair hangs carelessly in front of his eyes. Trophies of defeated demons hang unevenly on his office wall, empty pizza boxes sit on his business desk across the room from a pool table and a drum set—everything about his environment speaks to a cultural image of a lone-wolf cowboy sort of personality. When a mysterious woman crashes through the front door of his office in the opening scene on a motorcycle, his only reaction while reclining on his desk is to say, “Whoa, slow down babe,” unfazed by the destruction of his own property. He even has a sword named Rebellion.

The mechanics of the game only further reinforce the virtual identity. Players can unlock new skills by spending red orbs collected from defeated enemies, but these skills all exist solely to augment combat. Dante uses different weapons—guns, swords, gauntlets—but the game makes no allowance for such detail as Gee experienced in *Arcanum*. There are no traps to arm,
nor are there conversation options to navigate. Play consists entirely of leaping around rooms
and fighting enemies with an ever-increasing number of attack types. The game rewards efficient
and precise use of this growing arsenal, assigning grades as combat carries on based on players
engaging in variety of attacks with little downtime between enemy encounters. As grades appear
on screen for better performance, they bear with them not only the conventional letter valuations
of A, B, C, etc., but lingo to further hammer home the thematic affectations of the game. D
stands for ‘dull’, C for ‘cool’, all the way up past A to a collection of S ranks that literally call
the player ‘stylish’. There is no way for a player to escape the virtual identity of Dante.

Gee’s next identity classification, that of the real, refers to Gee himself as a person
existing in reality independent of the game space. There are many complex components to this
identity which themselves merit separate research and are not within the scope of this project, but
it is important to distinguish the purely real and the purely virtual as two separate entities. The
identity of the real is dynamic, both passively and actively receiving input on its own. Gee lists a
number of his interests and factual qualities that all play into the facets of his identity as James
Paul Gee, and indeed some of the identities he lists will take precedence over the others
depending on the situation. The identity of a parent who must feed, clothe, and teach a child
might supersede the identity of a hobbyist video game player, for example, because young
children must develop autonomy over time. The importance of maintaining two lives outweighs
the need for momentary entertainment, so the practices and knowledge of a parent come to the
forefront. The identities are not necessarily discrete, however. As Gee notes

These identities become relevant only as they affect and are filtered through my identity
as a video-game player . . . and, indeed, any one of my real-world identities can be so
engaged whenever I am playing *Arcanum*. Which of these identities was at play . . . when I got such joy at having Bead Bead pick rich people’s pockets? (55)

He blends the real and virtual identities here which I will address in regard to his third type of identity, but more importantly he raises the point that identity portions can interact with one another. The aforementioned parent who is also a gamer might utilize video games to form a bond through play with a child, or might use them as a teaching tool. A parent without knowledge of video games, or perhaps a more antagonistic view of them, would make entirely different identity connections.

While the idea that different interests or needs can feed into one another might seem obvious, addressing the basic structure of identity illustrates the key difference between real and virtual identities: change. Gee, and any sentient being, is a collection of interests and cognitive processing systems that use information to take action; virtual identity is not. Bead Bead’s virtual identity, in spite of its more open appearance, is as scripted as Dante’s. The identity of the virtual is a replication, a representation of what someone or something might do within a set of imaginary circumstances. A typical human would suffer all kinds of autonomic nervous reactions to the above scenario where Dante watches a motorcycle crash into his office. A fight or flight adrenal response would fit such a startling event, as would surprise, anger, concern over the cost of repair or consciousness of the health of the driver. No matter what a viewer might feel, or even if the suddenness of the event itself startled the player, Dante is always unflappable in that scene. He does not incorporate any new data into himself, never varies from his acceptance of the situation. Narratively, his reaction suggests that his identity has incorporated so much more than a simple bike crash; an accident that a normal person might find horrifying is, to Dante,
common, which further suggests there must be something of a higher caliber of terror that he has
experienced. All of these inputs and allusions are authored and repeat every time a player starts
the game. Even Bead Bead with her more pliable background is nonetheless a static identity. The
earlier mentioned racial qualities she possesses do not change without the interference of the
developers. The virtual identity itself, by this understanding, appears less a unique identity in
relationship to the real and more like a sensory input, albeit one that might suggest sentience
through sufficiently complex representation.

Gee’s third identity type addresses this relationship between the virtual and the real,
which he calls a “projective identity” (55), a term to which he ascribes two concurrent
definitions:

1. To project one’s values and desires onto the virtual character

2. Seeing the virtual character as one’s own project in the making, a creature whom [he
imbues] with a certain trajectory through time defined by [his] aspirations for what
[he wants] that character to be and become (within the limitations of her capacities)

Projective identity bridges the space between the player outside the game and the character
within the game. The representation imprints its limitations upon the player, and the player in
turn attempts to exercise his will in the game space. Bogost notes this effect when he coins the
phrase “simulation gap” in Unit Operations, which “constitutes the core representation of
simulation, between the work’s rules and its reception” (107). Though Bogost’s term uses
representation and simulation differently than I have previously established, he still makes a
distinction between the rigidity of a system’s rules and the subjectivity of an external agent’s
engagement. The simulation gap is not an identity in itself, of course, but rather the space in
which projective identities grow and evolve. Depending on the type of game and even type of character a game utilizes, players will experience different levels of projective capacity.

Gary Alan Fine deconstructs identity in a similar fashion in *Shared Fantasy*. Fine’s work does not look to video games, but rather to tabletop RPGs, specifically *Dungeons & Dragons* (*D&D*). Tabletop RPGs are the forerunners of computer RPGs such as *Arcanum*, and as such the principles of engagement and identity building are, in theory, similar. The key difference between tabletop and computer variations is that the computer is restrictive. Analogue roleplaying requires one person to act as the Dungeon Master of the game. This master crafts the story and encounters just like a computer developer would, except a computer program cannot dynamically change a scenario unless its instructions account for such a situation. In *Final Fantasy* for the Nintendo Entertainment System, the player selects a party of four different adventurers lacking any personality beyond their professions. The four always start in the kingdom of Corneria, and must always go to the northern dungeon, defeat the traitorous knight Garland, and save Princess Sara before the king will build a bridge to the next area of the game. That sequence can never change. Players in a *D&D* scenario might find themselves faced with a similar task, but there are far fewer limits to actions. Dice rolls and statistics govern the failure or success of attacking, persuasion, lockpicking, and other such actions, but players are free to deviate from the Dungeon Master’s plan. The Dungeon Master is likewise free to attempt to steer them back on her own path, or to dynamically shift the nature of the game scenario to accommodate the players’ exploration. Princess Sara might never see freedom in a *D&D* scenario, but the players could still move to the next area.
The openness of such play still produces an interaction of different identity types. Fine views these as the psychological frames of people, players, and characters. Gaming, he says, is “grounded in the ‘primary framework,’ the commonsense understandings that people have of the real world” (186). People are Gee’s ‘real’ identities, beings outside the game space that are ultimately the foundation upon which all new identities grow. The second frame, that of the player, is the one impacted by the systems of the game. Players “do not operate in light of their primary frameworks—in terms of what is physically possible—but in light of the conventions of the game” (186). The player is the entity that experiences projective identity. Though Fine looks at the player in this definition as a mechanical actor in the game who understands the systems of success and failure, *D&D* is nonetheless a collaborative story-telling medium as well as a set of game rules. Any narrative elements within the game session are a part of the experience the player receives and are therefore subject to incorporation into player identity. Finally, the character identity matches Gee’s virtual identity, representing a character as it exists within the world of the fantasy.

Gee’s approach to the three identity types comes from his interest in the process of learning. Games are poignant example to him about adopting a new identity to experience unknown processes, but his perspective skews toward the nature of swapping identities for the purposes of education. Fine’s examination of gamers playing games, on the other hand, yields more detail on a distinction Gee only briefly mentions: there is a hierarchy of power and knowledge between the three identity types. As Fine points out:

The actor’s character pretends to know nothing of the actor’s self and knowledge . . . In the game structure players must play by the rules and refrain from using other devices
that are illegitimate. Likewise, the character must *know* only that information which is available within the game frame and not what the player or the person knows. (188)

Gee looks at a positive feedback loop of action whereby he feels pride in Bead Bead not only because of her accomplishments, but because her very existence indicates transcending his real-world self (58). This occupation with the gestalt experience, however, only implies the power interactions that Fine establishes. Players control characters, but can only try to act within the confines of the character’s understanding. A player, for instance, at best only has academic knowledge of living in medieval times or imagined knowledge of what fighting a dragon might entail. A character can have this knowledge in its entirety. Conversely, a character might not have great knowledge of dragons, but a player might, and striking the balance between the player acting as a character could prove difficult. A player might technically be cheating at the collaborative story if he makes a character duck when a dragon breathes deeply, but the character is unaware of dragons breathing fire.

Players share a similar relationship with people. People have absolute control over the nature of the game and its rules. If, in combat with a dragon, the Dungeon Master rolls damage dice (which are usually hidden from the players) and generates high enough numbers to kill a participant, by the rules of the game that player dies. By acting outside the rules, the Master can elect to let the player live, either by merely incapacitating him, or lying about the roll. Doing this might come from a people-player identity interface whereby the Dungeon Master respects a player’s place in the game or recognizes that a player death would result in a harder gaming session for the rest of the group. The power in this decision starts with the person identity and filters down to affect the players. Two people angry at a third might conspire to let harm come to
their characters—making them technically bad players—in order to get back at the third person. Such flowing between identity types is made simpler in the analogue space because the rule systems, though written in books, depend upon voluntary participation. A Dungeon Master can establish a world, but that doesn’t mean players will create characters that coherently fit within it. Failure and success states are mutable if the group agrees to change, and as such the differentiations Fine addresses are fluid. As mentioned earlier, computers, by contrast, come with rigid scripting. Developers implement stories, races, characters, worlds, and mechanics that players often cannot alter. Computers are uncompromising in their exercising of rule sets; if a character loses all its health, it dies unless there are mitigating mechanics. The machine will not make a judgment call to be nice.

In his presentation *The Identity Bubble – A Design Approach to Character and Story Creation* at the 2011 Game Developers Conference, designer Matthias Worch presents his own deconstruction of identity from an industry developer perspective. Worch approaches the topic by examining how games tell stories through their characters, but in doing so he necessarily looks at the question of identity. Players, after all, must control a character, traditional or otherwise, to move through a narrative arc. Worch establishes a spectrum in the talk that measures characters as either puppets or vehicles. The former present blank slate characters and the most possible freedom for player control of growth, while the latter represents the developer-created character with established traits and personality. Regardless of the point on the spectrum, he argues just as Gee and Fine have, that the player and avatar are separate entities. As such:

The interesting part is that the player establishes double-consciousness: *he* chooses to enter the magic circle, *he* chooses to push aside parts of his identity that prevent him from
enjoying—and acting appropriately within—the game . . . and by doing so, he submits himself to all sorts of voices with different points of views and different agendas (Worch) Choice plays a fundamental role in adopting or adapting to an identity within a game space. Even though Worch’s statement refers to the initial participation in a video game, it lays out the conceptual groundwork for the importance choice plays in the projective identity of a player. In the real world, we make choices on a daily basis, but many of these are thrust upon us by society or nature. We must eat, and when we do so it is governed by cycles of human hunger, the traditional lunch time as a result of centuries of cultural growth, whatever flavors we naturally find appealing, and a host of other factors. In World of Warcraft, we eat food because it restores health, but unless we take damage, there is no need to restore health. Many food types also increase a statistic for a limited amount of time, so if we need to do more damage, we might eat food for that. Alternatively, we might choose not to eat if we find the food system annoying, expensive, or unfulfilling, or we might not play the game at all. The key to this type of choice is that we have the capacity to experience a representation or facsimile of something imagined in an entirely different context than that of the real world.

In examining how to develop games toward a coherent player understanding of a world, Worch combines Fine’s psychological frame types with further analysis from Arkane Studios’ Harvey Smith. Each of Fine’s frames, by this model, contains constituent parts as follows:

**Character:** Character contains both fictional qualities and archetypal qualities. Even a character based on a real person is a fictionalized version of that person. The personality of the character also contains literary, popular, mythological, or archetypal traits.
Player: The player solves problems or completes tasks within the game, grows in mastery over the game’s physical and mental challenges, and feels emotional responses that guide play through the space.

People: People have a sense of their overall gaming skill level across multiple genres, a personal sense of self in relation to the rest of the world, and the demands of real life.

The titular Identity Bubble of Worch’s paper is built upon maintaining parity between these three frames and their parts. The idea behind the Bubble is that players must feel the types of identity in alignment with one another to maintain the consistency of a game’s experience; if one frame drifts too far apart from the others, the Bubble may burst and the player may feel a sense of disparity. *BioShock* utilizes this idea in its core twist. When the player finally encounters Andrew Ryan, the supposed villain of the game, Ryan reveals that the player has only been following psychologically programmed commands. Every time someone utters the phrase “Would you kindly,” the player character must obey the command. Since the beginning of the game, Ryan’s nemesis, Frank Fontane, has masqueraded as a rebel while secretly using the phrase to guide the player to kill Ryan. Fontane’s instructions come in the form of radio communications directing the player to the next objective as is common across many game types, so the Player identity of a gamer recognizes the quest-giving system as normal. The game offers no other options in terms of forward progress, but it does give the player the choice of developing different combat skills and techniques to overcome obstacles. The distraction of the manner in which to defeat enemies obscures the fact that each step is always required both mechanically and narratively. The player moves forward just as the character moves forward, so there is parity in the experience.
Skyrim, on the other hand, contains many examples of dissonance. Early in the game, the player encounters a locked door with three animal emblems on it and a claw-shaped marking at its center:

Fig. 5.1. The dragon claw puzzle in Skyrim

Solving the puzzle involves acquiring a dragon claw shaped item that has three animal emblems in its palm. The player must match the three symbols on the door from top to bottom with the symbols on the claw, then insert the claw into the marking, and the door opens. There are ten of these claws throughout the game to match ten sealed doors. The puzzle is simple, the claws sometimes easy to find, and some of the doors are close to the entrance of low difficulty caves. The doors are also old in the history of the world, suggesting that no one in the land of Skyrim has ever been intelligent enough to solve matching three pictures on a door until the player comes along. The identity misalignment of puzzles such as this one comes from the character appearing to be a genius in the context of the world and the player recognizing the relative ease of the solution.

Skyrim contains numerous misalignments of this nature, some of which are even more absurd. Gaining entry to the mages’ college, for instance, normally requires a demonstration of
magical aptitude. Fortifying persuasion skill with a potion, however, enables bypassing the guard and grants entrance. Once the player is in the college, the game allows him to complete every mage quest without ever needing to learn magic spells. Enchanted items can satisfy every quest requirement, resulting in the player becoming the Arch Mage of Skyrim—a position supposedly held by the most powerful magic wielder in the land—without actually knowing a single spell. Likewise, the player can become the head of all of the major guilds, meaning not only is the character supposedly a master thief, fighter, mage, and assassin, but is simultaneously the bureaucratic head of all those institutions. It is worth noting that misalignments in identity do not necessarily make a game bad. I specifically chose *Skyrim* as an example in this case due to its lasting popularity and critical success, but as I will examine in a later chapter, there are more factors contributing to *Skyrim’s* quality than simply the alignment of identities.

The identity spectrum created across Gee, Fine, and Worch’s work may use varying terminology, but at its core it is always focused on the entity outside the game as separate from the one inside the game and the existence of a bridge between the two. These classifications are conceptually broad, however, and assume choice at the core of interaction without necessarily providing deeper insight into the types of choice and identities in games. Identity is, in fact, part of a loop alongside choice and agency that feeds back into itself, creating an ever-evolving understanding of a game space.
Choice, Agency, and Identity

Nick Montfort posits that treating interaction within a game world as simply playing is an insufficient description of the process. Rather, he believes that:

- to think of the interactor as steering, rather than playing, suggests that the player is a sort of vehicle from which a world can be seen and otherwise experienced, and that this character both constrains us (we have to remain in the vehicle) and also opens up possibilities (we can use the vehicle to get around and even to effect changes in the world). (Montfort 140)

Worch’s identity spectrum utilizes this vehicular comparison in its terminology specifically because the metaphor of a vehicle implies control with limitation similar to a character in a computer system. Even though Worch derives his spectrum partly from this concept, Montfort intends the principle in a different, more global manner. Creating a good character, to Montfort, “involves putting this character in a situation that is motivating for the interactor—but not giving the interactor an actual dramatic script or a role to play” (Harrigan 140). In essence, a strong vehicle through the game world gives the player a reason to make choices without feeling as though she is simply moving along a prescribed path. Monfort also, separate from Worch’s work, acknowledges the puppet as capturing the player character as an anthropomorphic figure, but he also criticizes its usefulness as a term specifically because it “fails to capture how the world is presented to the interactor from the perspective of [the] character” (Montfort 140). Even through these disagreements of terminology, however, the underlying principle behind both puppet and vehicle is the player capacity for choice. Choice makes the puppet move and the
vehicle drive, and the way in which the puppet or the vehicle moves through the world helps to
create identity.

For a digital game, the process of molding an identity is contained within the system, so
developers must consider how to engage players with choices that maintain the alignment of both
the projective and virtual identities. Janet Murray notes that:

If the key to compelling storytelling in a participatory medium lies in scripting the
interactor, the challenge for the future is to invent scripts that are formulaic enough to be
easily grasped and responded to but flexible enough to capture a wider range of human
behavior than treasure hunting and troll slaughter. (79)

Murray uses the term ‘scripting’ here to mean the computer scripting of potential actions within
the system, effectively the types of choices players can make. She makes this statement about
choice in regard to the text adventure game Zork, a game that takes place entirely through text
descriptions and input. Players receive descriptions of their surrounding from the game, type
their own commands into the game’s text parser, and receive information back regarding
successful or failed actions. The game attempts, in this manner, to provide interactive choices to
the player via text entry which then return consequences also in the form of text responses.

Since the game operates textually, it limits potential actions by the depth of its own
internal script and the vocabulary and reasoning skills of the player. If the game describes water
on one screen, a player might type “drink water” to act. If a response exists in the game’s
database to the command “drink” in regard to the object “water,” the game will return a positive
response. A negative response results if the action is impossible. Differing verbs limit Zork’s
responses. A player who types “gulp water” or “quaff water” might receive the response “I don’t
understand that” because the text parser recognizes neither of those verbs. The same incident can occur regarding objects of actions, trying to create outcomes the game is not programmed to handle, or trying to move to locations that do not exist. To win at Zork, “you must orchestrate your actions carefully and learn from repeated trial and error . . . in a way, the computer [is] programming the player” (Murray 77). The choices and responses feed back into the player’s understanding of the world—the understanding of the character identity and the projective identity’s capacity for agency—and modify future behavior.

Salen and Zimmerman create a model in Rules of Play that describes the process of choice and feedback. The three components of their model compose a loop:

1. Player takes action
2. Game creates output
3. Player makes internal decision (316)

The approach to this loop addresses primarily mechanical interactions—though Salen and Zimmerman importantly do not exclude narrative or more abstract concepts from its application—and is consequently more localized in application. In Super Metroid, players take on the role of an interstellar bounty hunter named Samus Aran who hunts down the dangerous Metroids—life draining aliens—and those who seek to use them as weapons. Players control Samus in two-dimensional space similar to that of Super Mario Bros., but Samus can shoot a variety of different weapon types and gain upgrades to her armor that allow for higher jumps, faster running, grappling to special environmental objects, and traversing deadly environments. If we apply the action loop to the game, we might find Samus in the fight with the water beast Draygon, a monster considered one of the major boss encounters of the game due to its strength.
Throughout the game, bosses typically take damage from the missile or super missile weapons, so a player might find Draygon’s weak point—its stomach—by taking the action of firing a missile at it.

The game creates output in the form of Draygon flashing and gradually changing color to indicate damage. The player makes the internal decision to continue firing missiles at this point until Draygon dies. The loop does not necessarily require starting at player action, however, beyond the initial decision to initiate play. In the same scenario, the player may have already begun the process of firing at Draygon, but then Draygon descends and grabs the player. The game has generated an unexpected output in this scenario that interrupts the original loop. A misfired missile might hit one of the gun turrets on the wall, destroying it and revealing an electrical field. A player can now examine the play space to make an internal decision before taking the next action, in this case attempting to discover whether the electricity is somehow a viable weapon in the fight. When the two scenarios combine—the electrical field exposure and Draygon picking up Samus—the player can use the grappling beam to connect to the field, damaging Samus but even more heavily damaging Draygon in the process. This scenario is, in fact, the fastest way to kill the monster.

If we pull back from the narrower view of individual game events, the action loop actually creates a greater template for entire game experiences. Throughout the previous chapters of this research, I have examined choice and agency in a representative space, and here I have investigated how these two elements contribute to developing identity. We can overlay these three factors on top of Salen and Zimmerman’s model to simply show:
1. Choice
2. Agency
3. Identity

The types of choices a game offers and the consequences it provides to those choices affords players their sense of agency, which then incorporates into their identities both within and outside of the game world. This model broadly applies to all levels of identity with the flexibility to accommodate all the types of game experiences developers attempt to provide. In the above *Super Metroid* example, the game’s provision of a secondary, but somewhat hidden method of defeating Draygon is doing more than just creating a moment of cognition and response; it is creating an exploration and experimentation structure that communicates to the player that the obvious answer is not the only answer. Nintendo built *Super Metroid* and its predecessors as exploratory games that, while still reliant primarily on platform-jumping and shooting to progress, deliberately show the player unattainable paths or items. In the first screens of the first iteration of the series, *Metroid*, if Samus runs left and jumps over the obstacles in her path, she falls back down to the floor to find the way back barred. A small tunnel leads under the platforms, but there is no way to enter it. With no way to go back, and a barrier further to the left, the player has no option but to interact with the sphere in front of Samus. This sphere provides the ability for Samus to roll into a ball small enough to traverse the tunnel. With so few avenues of motion and buttons to push, the player will quickly discover the appropriate method of escape, leading to further areas of experimentation and discovery.
Just a short distance back to the right, shooting a ceiling tile reveals an energy canister that extends Samus’ life. At this point in the game, there is no way to reach the canister, so the player must move forward. In just a few screens, the game allows the player to make mechanical and exploratory choices that both reward and deny rewards. The consequence of the reward—a new power—imprints upon the player that seemingly impassable paths have solutions and that leaving no stone unturned profits the player. The denial of reward emphasizes the need to remember locations in the game while also immediately suggesting that, unlike a linear platforming game like Super Mario Bros., players have the ability to return to different areas of the game. The game further reinforces these lessons which subsequently mold player behavior and change the way players approach each new situation.

The depth of solutions to the fight with Draygon demonstrates a sophistication of this identity modifying technique. Newcomers to the series who might be more familiar with linear action games such as Super Mario Bros. or arcade-style shooting games like Contra, where
players move linearly through levels as soldiers trying to shoot everything and survive, can approach the fight as pure action. Veterans of the series who have accepted Metroid’s exploratory suggestions can evaluate that the active game elements in the room might have deeper meaning than simply being obstacles. The ambiguity of Samus as a bounty hunter also serves both the brute force and puzzle solver identity. Per Worch’s assertions, the player and character identities have room for alignment within the scope of the game. We might reasonably assume a bounty hunter to be an effective warrior by either cleverness, strength, or both. The world of Super Metroid from its outset presents Samus as a strong and swift warrior who has already accomplished much in her previous adventures, but, like the player, she has much room for growth. The first boss encounter of the game, Ridley, actually has two completion conditions: inflict enough damage on Ridley to prompt his escape, or take enough player damage that Ridley leaves. Once again, the accomplished player wins alongside Samus’ skill, or the new player sees that both he and Samus must develop their skills (or, alternatively, the advanced player seeking to get the best ending, which is based on completion time, sees that it is faster to let Ridley win, thus reinforcing the identity of an achiever and the behaviors that it entails).

RPGs, as noted by Gee earlier, often afford more identity in the narrative of the world due to the arenas in which decisions have impact. In Metroid, Samus has a defined identity, not so much as Dante as earlier mentioned, but she is still always a bounty hunter wearing her futuristic armor and wielding science fiction weapons. She is always combatting the space pirates and their attempts at utilizing Metroids, she is always the savior of a baby Metroid who in return views her as its mother and sacrifices itself to save her. She falls somewhere in the middle of the puppet-vehicle spectrum. Fallout 2, in contrast, uses a more puppet-like main character,
but also affords the same type of identity teaching. Like many RPGs, *Fallout 2* allows the player to create a character with a statistical template representing traits like strength and intelligence. Each of these statistics affects various elements of combat, environmental interaction, and conversation in the world. *Fallout 2* notably provides a different game experience for characters of low intelligence. In the first town outside of the character’s home village, the character Torr normally expresses himself simply. If a character of normal intelligence approaches him, he says, “Bugmen take moo-moos at night. Torr scared! Help Torr?” meaning that the mutated bug creatures attack the village’s mutated cows at night. A player character of low intelligence (less than a value of 4) will see a different version of this message that reads, “Well, as I said, they are nocturnal in their feeding habits. I sure could use some assistance in guarding the brahmin. Will you kill any bugmen that you see near the brahmin?” Meanwhile, characters who would otherwise normally speak to the player now shrug him off, assuming that the character would not understand more complex ideas. The communication dynamic between the character and the world shifts completely.

The entire game experience changes as a result of this statistical choice. The character’s identity in the world profoundly affects his perception and image to others, thus barring the player from many activities. The alterations go beyond character interactions as well, extending to the descriptions of encounters with different situations or inanimate objects. Even something like slot machines at a casino appear foreign:
Many quests in the game are inaccessible since the quest-givers dismiss the character, thus making growth difficult (experience for gaining levels and thus growing in strength comes largely from quests). Combat in a play through like this becomes a primary source of experience, and the character receives minimal information in regard to the story line. Notably, this works primarily because of the voluntary separation between the player’s identity and the character’s. The game does not force this difficulty on a player, but, as Worch says, the player elects to engage in such play. Not only are there choice structures in the game that facilitate the exploration and the agency (or, in this case, the frequent lack of agency), but the engineered responses account for a variety of inputs. That such a strange sort of play through exists, even if it is difficult, engages players to consider the potential differences across multiple character identities.
**Player Types and Choice**

Identity varies from player to player, so even though *Super Metroid* might use clever design to aid in identity development, a person or player who does not enjoy its style of gameplay will not engage with the game. Enjoyment and the consequent predisposition toward certain game types are components of the real and projective identities (as Fine’s earlier point notes, the character cannot know about the player, so the virtual identity itself is unaffected). As Salen and Zimmerman note about game creation and the three-part model, it “only generate[s] meaningful play as part of a larger designed system. What kind of play experience do you want to create?” (316). The above examples look at the system as a whole, but *Super Metroid* is not the same type of game as *Fallout 2* even if they employ the same techniques.

Richard Bartle’s taxonomy of player types and Nick Yee’s refinement of it provide a model for examining identity as a result of choice and consequence responses. Bartle’s definitions of player types come out of Multi-User Dungeons (MUDs), the precursor to MMOs. MUDs connect multiple people to a virtual text-based world on a host computer. These worlds vary depending on the type of MUD, but typically they borrow heavily from *D&D* styled RPG systems and use text parsers reminiscent of *Zork*. Since multiple users move around the space and can encounter one another, Bartle had the opportunity to observe their behaviors and created his taxonomy to better inform MUD design to appeal to different people. His four types include Killers, Socializers, Explorers, and Achievers, each of which occupies a quadrant of a behavioral chart weighting action against interaction, and players against the world.
Bartle theorizes in this evaluation that participants in games are interested either in acting on other presences in the game world, or interacting within the confines of the game. Likewise, he distinguishes between participants desiring to act upon the world or other participants. By this reckoning a player who wishes to act upon other players does not want cooperation, but rather the power of dominion through her own actions. Likewise, the achiever seeks to be the best at the game by utilizing the tools available to her to achieve victory over any challenges the game might contain.

These four types appear to be identities, but they are unfortunately underdeveloped and not necessarily accurate. The mutual exclusivity between the differing types is false, especially in modern games. *Guild Wars 2* is a 2012 MMO that heavily focuses on player socialization across all its facets. Group quests continually spawn in different areas of the world, many of which require the cooperation of multiple people to complete. Tequatl the Sunless is a dragon boss that overtakes an entire zone and requires multiple people to attack the boss as well as use and defend turrets and lasers that make the fight easier. Organization and socialization are mandatory components of defeating Tequatl, which in itself would fall under the achievement
category. The game also offers vista points on the map that prompt players to search the area for environmental puzzles to reach a cliff or overlook for a nice view of the area. The game also hides what it calls jumping puzzles in unmarked locations across the landscape. Such puzzles require greater understanding of game mechanics like jumping or player movement skills to attain victory—an achiever goal—but only explorers initially find such puzzles. The Bartle types are clearly a foundation of behaviors, but the evolution of games beyond the early 90s MUDs that inspired his taxonomy has outpaced his ideas. Bartle himself acknowledges this end the endnotes of his work when he points out that he is not a trained psychologist, nor is there a conventionally rigorous methodology to his subject matter (Bartle).

Nick Yee’s work applies more rigorous standards to the foundation of Bartle’s types and provides a more elaborate set of play motivators. His analysis of 3200 respondents produced ten factors within three categories of experience that figure into a player’s valuation and enjoyment of a game experience:

<table>
<thead>
<tr>
<th>Achievement</th>
<th>Social</th>
<th>Immersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advancement</td>
<td>Socializing</td>
<td>Discovery</td>
</tr>
<tr>
<td>Progress, Power,</td>
<td>Casual Chat,</td>
<td>Exploration, Lore,</td>
</tr>
<tr>
<td>Accumulation,</td>
<td>Helping Others,</td>
<td>Finding Hidden Things</td>
</tr>
<tr>
<td>Status</td>
<td>Making Friends</td>
<td></td>
</tr>
<tr>
<td>Mechanics</td>
<td>Relationship</td>
<td>Role-Playing</td>
</tr>
<tr>
<td>Numbers,</td>
<td>Personal, Self-Disclosure,</td>
<td>Story Line, Character History,</td>
</tr>
<tr>
<td>Optimization,</td>
<td>Find and Give Support</td>
<td>Roles, Fantasy</td>
</tr>
<tr>
<td>Templating, Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>Teamwork</td>
<td>Customization</td>
</tr>
<tr>
<td>Challenging Others,</td>
<td>Collaboration, Groups,</td>
<td>Appearance, Accessories,</td>
</tr>
<tr>
<td>Provocation,</td>
<td>Group Achievements</td>
<td>Style, Color Schemes</td>
</tr>
<tr>
<td>Domination</td>
<td></td>
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</tr>
</tbody>
</table>

Fig. 5.5. Nick Yee’s play motivators
This evolution of play motivation is, rather than explicitly a set of player types, a matrix of behaviors that can exist simultaneously or separately depending on the player. Yee goes to great pains to ensure recognition of this fact when he says:

The subcomponents generated by the factor analysis are NOT player types. It is NOT the case that we have come up with 10 boxes that we can put players in, but rather, we have revealed 10 subcomponents that co-exist and together reveal the motivations of a player.

(Yee)

He also notes that Bartle’s assumptions about player types negatively correlated opposing elements, meaning that being a greater Achiever reduces how much of a Socializer or Explorer a player might be. As the *Guild Wars 2* exampled demonstrated, games do not fit so neatly into boxes, nor do players who enjoy all facets. Yee’s motivators not only provide a more developed understanding of players, but also hint at the type of choices players need in order to feel satisfied. Player motivation is a part of player identity, so it follows that the types of choices a developer needs to provide to support or deny identity must somehow relate to Yee’s motivators per the choice-agency-identity loop.

Each set of factors and its subcomponents relate to the taxonomical types from this research. Achievement motivators account for players manipulating the system for its own sake, to meet the challenges of the system, or to meet the challenges of others like themselves. Engagement with these systems is entirely on the mechanical level, so an appeal to Yee’s achievement motivators derives primarily from first order choices. In *Rock Band*, players use a plastic guitar controller to engage with real songs. A fret board occupies the center of the screen and visually scrolls toward the player. Different colored blocks travel down one of five lanes on
the fret board. When the block reaches the narrow zone at the end of the board, the player must press the corresponding button on the neck of the guitar controller and press or pull on a bar placed where the pickups would be on a real instrument. The blocks travel in time with the song in order to emulate the experience of playing. Successfully hitting multiple notes in a row raises a score multiplier for the accumulation of more points. The game awards one to five stars depending on the number of points earned, and similarly has a score threshold at which five stars turn golden. Scores post to an online high-score server where players can compete with one another. At its core, Rock Band is about making a player feel like a rock musician in some capacity; it is a game about assuming an identity. Executing well-played music is a physical achievement, and being a rock star is a social one, so Harmonix designed the player experience around in engaging in those feelings.

Player choice is actually limited in Rock Band. Mechanical choice comes in the form of which instrument to play (drums, guitar, bass, or vocals), which song to play, and difficulty, which affects how many notes show up on the fret board. Moving forward through the game requires playing easier songs to unlock harder ones, and then replaying for higher scores. Much like with practicing music, the core loop of Rock Band is to practice, get better, and then perform better. The reduction of an instrument to a five-button controller will not teach a player to be a musician, but it affords the representation of being a musician. Making the proper choices of songs to challenge and learn new skills will imprint new finger patterns and sense of rhythm to the player, who then internalizes these experiences to become a better player. The guitar controller, for example, has two sets of five buttons that do the same thing. The buttons at the top of the next are larger like the frets on a real guitar, and smaller at the bottom. During solo
sequences in songs, denoted by a blue background appearing on the fret board, the bottom buttons do not require strumming to hit notes—the player only needs to press the button in time with the song. This functionality imitates real guitar playing high on the neck during solo phrases where players constantly hammer on and pull off notes. Understanding the identity elements of musicians and learning the mechanical choices the game offers might lead a player to only use the bottom buttons for the sake of achievement, both to save time rather than switching button sets during solo phrases and to capitalize on the closer distance between buttons for optimal speed.

Immersion motivators revolve around narrative factors and the player’s need to engage with the world on a projective or virtual level. First-order choices certainly impact immersion motivators since they are at the core of being able to engage with a game at all, but the higher tiers come into play more prominently. Role-playing heavily falls within the second and third choice orders since the driving force behind a player who identifies with roles in the world is engagement with the world’s narratives. In *Dishonored*, the character Corvo is a bodyguard framed for the murder of the empress. He subsequently becomes an assassin and the pawn of a resistance movement that tasks him with eliminating those responsible for the coup. As an assassin, two of Corvo’s primary identity elements are his stealth and willingness to kill. Mechanically, the game accommodates many different methods of utilizing either of these two elements to navigate the space. Level designers for the game paid great attention to visual cues to draw players to creatively laid piping, ductwork, and other environmental objects that provide cover for sneaking past enemies. To ensure the most positive ending to the game, players must engage in what the game calls a ‘low chaos’ play through, meaning that Corvo kills no one. Such
a play through means players must make binary and implicit choices about the key figures they
are supposed to eliminate. One antagonist, High Overseer Campbell, is part of a group of
religious military zealots. Rather than killing him, Corvo can knock him out and brand him with
the symbol of a heretic, a brand that carries with it unquestioning ostracization from his order.
Doing so requires the player to actively incapacitate Campbell with tranquilizer or melee attacks,
place Campbell in a chair, retrieve the brand, and mark Campbell. All of these actions are
separate, therefore implicit to play. The choice itself has only two options, brand or kill, so it is
binary. The meta-system of the game tracks the decision as well, contributing to the level of
chaos in the world—another input that incorporates into player identity. A player who wants to
play through the game cleanly that accidentally kills Campbell must incorporate that death and
its effect into future play decisions. With a perfectly clean play session impossible, the player is
free to shift play styles, thus opening himself up to new choices and experiences.

Social motivators apply to players who want to meet others, express themselves, or
actively work with others in the game space. Fourth order interpersonal choices govern these
motivators entirely. Though I have argued that developers relinquish some degree of freedom
when they focus on fourth order choices, they can create spaces and activities that suggest
interaction. Jesse Schell lists designer techniques for prompting social play, among which are
using architecture to shape community, create conflict, and create inter-player dependency (403-
409). Fourth order choices largely involve how players outside of a game choose to utilize the
lower orders to achieve goals—freedom is a part of their identity as a player. As a result, spaces
that suggest multiplayer interaction will likely draw it provided the rewards appeal to the entire
crowd. World of Warcraft’s Dalaran is a neutral hub city, meaning both factions can visit it
without fear of attack from one another. The city is circular with a commercial district containing all of the crafting profession trainers. Many quests bring players back to the city, and an underground player vs. player area can flip from safe to dangerous at a moment’s notice. Navigation of the space is simple and many important elements of play happen. Players choose to use the city as their home base because it is convenient to the current content of the game (meaning it is closest to the quest areas in the Legion expansion pack), so the city in turn provides the strongest social atmosphere. Players who identify as social know to spend time in the city. People who want to investigate the dangerous sewers can team up with one another to try and survive the chaotic melee, and crafter looking to beat auction house prices can advertise in town. The city is a social ecosystem designed to bring players together, allow them to exercise their choice of play style, and then reinforce the space as a social hub.
CASE STUDIES INTRODUCTION

The taxonomy I have created in the previous chapters reveals patterns in game development that apply to the agency players feel in worlds as well as the identities they form. So far, however, each example I have used to depict particular choice types has been primarily singular to the type of choice in question. The higher orders of the taxonomy involve combinations and permutations of the first two orders of choice, so it stands to reason that the taxonomy should be viable for the deeper analysis of a single game. Furthermore, the breakdown of choice types enables detailed analysis of how particular combinations or presentations of the same types can create different player experiences even within games that appear to have similar experiential or thematic goals. With this idea in mind, I will present three case studies in the following chapters to more deeply examine choice as it relates to agency, identity, and the subversion of player expectation.
CHAPTER 6
AGENCY CASE STUDY: HEAVY RAIN AND THE LAST OF US

Agency, as earlier established, manifests through the relationship between choice and consequence in a game space. Developers utilize this relationship to create feelings of power or impotence in players for the sake of narrative emotional effect, to spur continued engagement with the system, and to afford personalized development of play behaviors. The power of agency lies in the sense of control it provides, and careful engineering of choice and consequence is a part of such provision. Denial of choice, however, is just as powerful. Though the focus of this entire study breaks down modes of choice and the resulting effects they have, if players come to expect choice, then bucking that expectation has power. In order to illustrate agentic power, this chapter will examine two games that heavily rely on player expectation of choice and consequence—Quantic Dream’s Heavy Rain and Naughty Dog’s The Last of Us.

I have chosen these two games specifically because of their heavily authored nature. The developers of both games maintain careful control over the way story scenarios occur; there are no procedural elements, meaning there is no algorithmic system in the background of either game combining assets from a bank into different forms. Even though Heavy Rain has multiple permutations of its ending sequences, all of those sequences demonstrate planning and deliberate scripting. The Last of Us also follows a strictly authored path. I specify this level of authorial control for this study because there do exist games that attempt to create meaningful stories through procedural generation and game elements, but they propose a set of challenges outside of the scope of this research.
Background on the Games

*Heavy Rain* is the brainchild of Quantic Dream’s founder, director, and lead writer David Cage. The game, as with all of Quantic Dream’s work, skews toward the cinematic, putting the player in the shoes of four different characters whose fates are tied to the re-emergence of a serial killer, the Origami Killer (so named for the origami figures left in the hands of his victims) who targets children. The four characters are:

1. Ethan Mars, a bereaved father whose first son’s death is echoed in the kidnapping of his surviving son, Shaun, by the killer, who sets forth a series of tasks for Ethan whereby Ethan can prove his worth as a father to save Shaun. The game also sets Ethan up as a suspect for the killings, leveraging the mental blackouts left over from the accident that claimed his son as times he might be executing the killer’s scheme.

2. Norman Jayden, an FBI agent tasked with aiding the police in their attempts to profile and capture the Origami killer. Jayden suffers from two primary conflicts. Firstly, he uses an augmented reality device to digitally sort through evidence, but he has consequently developed an addiction to the imaginary drug triptocaine to cope with the side effects. Later in the game, overuse of the device can kill him. Secondly, Jayden finds rivalry from Carter Blake, an officer who has failed to find the Origami Killer and is convinced of Ethan’s guild.

3. Madison Paige, an insomniac reporter who serves to put the player on the trail of the killer. Paige grows convinced of Ethan’s innocence over the course of her investigation, during which she confronts other dangerous figures involved in the Origami Killer’s activities. Her challenges involve overcoming the threats of her investigation and aiding
Ethan in the last portion of his journey. She may potentially end up in a relationship with Ethan depending on the player’s actions.

4. Scott Shelby, a private investigator supposedly hired by the families of the Origami Killer’s victims. In actuality, Shelby is the killer suffering from the childhood trauma of watching his brother drown to death while his father did nothing. His consequent dysfunction manifests in the form of kidnapping children during the rainy season and hiding them, challenging their fathers to prove their worth before the rainfall leads to drowning. Shelby’s actual purpose is to acquire any evidence from the families of his victims that might implicate him in the murders, hence his posing as a private detective. His motivations remain hidden to the player until near the end of the game.

Players take control of one of these characters at a time in a set order, though the content of each chapter will differ depending on prior actions, which I will address in specifics later in this chapter. All four characters weave in and out of each other’s stories. As such, the actions of one character affect the possible states of another character’s scenario, and these effects ripple through the game to its ending. Contrary to most narrative heavy games, all of the main characters can die at some point and the remainder of the story will continue. There will always be at least one character left at the end to finalize the narrative arc, but which character survives is dependent on player input.

_The Last of Us_, by contrast, is entirely linear in its narrative delivery. The subject matter of the game is no less serious than that of _Heavy Rain_, but its technique in presenting the narrative affords no deviation from its prescribed path. The game starts in the outskirts of Austin, Texas where protagonist Joel lives with his daughter, Sarah. Commotion outside of their house
leads to the pair fleeing along with Joel’s brother as people begin to act violently and erratically. In their attempts to escape, a soldier fatally shoots Sarah, and the introduction flashes forward twenty years. The world lies in shambles at the hands of a variant of the cordyceps fungus, which normally targets insects and arthropods. The fungus slowly replaces host tissue, eventually reaching the brain and affecting behavior until entirely overtaking the body resulting in death. In *The Last of Us*, this cordyceps variant has mutated to infect humans, transforming the afflicted into zombie-like creatures for the duration of their existence.

Joel makes his living as a smuggler in the Boston quarantine zone--one of the last vestiges of humanity untouched by the outbreak. Amid his smuggling, Joel deals with The Fireflies, who resist the authority of the quarantine authorities, and he takes on a job to smuggle a teenaged girl named Ellie to the capitol building outside the quarantine. Ellie is infected with cordyceps, which normally displays symptoms within two days, but she has shown no signs for three weeks. Her delivery to the Fireflies at the capitol building holds hope for a potential cure. During the remainder of the game, Joel and Ellie sneak through multiple urban and rural locales with survival as their primary goal. Threats come not only in the form of the infected, but also of the varying factions of humans who have banded together and from long-term injuries in a world without readily available medical treatment. Upon making it to the Firefly base, Joel discovers that the only way to produce a vaccine from Ellie’s immunity will mean her death. Having formed an attachment to Ellie like the one he lost with his daughter twenty years prior, Joel kills the doctors performing the procedure on an unconscious Ellie and escapes with her. The game closes with Ellie’s suspicions about the events at the medical facility, but Joel insisting that the Fireflies could not produce a cure and there was nothing more to be done.
Mechanics and Agency

Heavy Rain and The Last of Us share passing similarities in that both games take place in the third person with the back of the avatar in full view on the screen, and players navigate the avatar through each environment with the left joystick. Beyond those two elements, the games are radically divergent in the types of choices they offer in the adventure space.

Both games operating in the third person means that the camera is a detached object from the avatar’s body that affords a wider view of the environment. The spatial choices implemented via this mode of control differ slightly between the two, however, in order to augment the game experience. The Last of Us is a stealth action game between its story sequences. Players can choose to barrel into enemy encounters in a frontal assault, but in many cases this option, at best, will leave the player wounded and with fewer items, and at worst it will result in a death due to the overpowering nature of some of the enemies. Heavy Rain, on the other hand, as previously mentioned attempts to deliver an experience closer to the cinema. The needs of these two experiences are dissimilar, and as such the developers have implemented different spatial choice restrictions.

Both games allow the player to move more or less freely about the environment, but the camera as a game object ultimately determines the window through which players can interact. The Last of Us allows limited rotation of the camera for better views around corners, the ceiling, and the floor. The camera is anchored behind the avatar and cannot freely fly around a room, but the spatial control afforded to it makes it as much a stealth tool as a window to see the game space. Given proper use, the camera can provide information about enemies located in spots that
would not otherwise be visible to an actual person. In a room where Joel crouches behind a set of shelves, for instance, the camera still sits at roughly the same height as when Joel stands, allowing the player to plan actions based on enemy movement that Joel himself cannot physically witness. The camera, as a result of such spatial choice, becomes an active participant in progressing through the game space.

*Heavy Rain* conversely maintains limited, primarily static shots in every environment, taking on a more deliberate, filmic quality. Some scenes have different camera angles, but there is no freedom in the location of the camera; it either follows a character through an open space, or a player can toggle between multiple stationary shots. This camera design means that the player’s spatial decisions, contrary to those of *The Last of Us*, only include the avatar’s movement. Consequently, design choices differ. Interactive objects must show up within the view of the screen for players to be able to accurately assess other decision-making. The limitation of the camera limits the space in which players can act, but also affords deeper control to the developer to guide a player through an experience. During Madison’s introductory sequence, she suffers through a nightmare (though the game does not initially reveal this to the player) of masked men invading her home. She races around the apartment, ducking and dodging as the camera dynamically shifts. When she runs into the camera and we see one of the assailants chasing her from behind, another assailant poises himself off-screen in front of her to create a shift in the tension. Even at the end of the dream when Madison has locked herself in the bathroom, a third man appears impossibly behind her and off camera to attempt to kill her as she wakes. The player controls the action prompts through this scene, but has absolutely no control of the camera at all.
Ironically, the spatial choices in each game represent the polar opposite of the amount of freedom they respectively try to give the player. The controlled nature of *Heavy Rain* may mean that a player cannot choose where to go beyond the engineered limitations, but it also means that Cage has complete control over every scene in the game. Perhaps somewhat counter-intuitively, Cage can actually provide more narrative freedom in *Heavy Rain* by crafting multiple different scenes that can flow into one another due to specific player feedback. He does not risk a player who does not want to engage with the story halting progress, but rather generates many permutations of story events such that no two playthroughs of the game will likely be exactly the same. *The Last of Us*, on the other hand, for its extra freedom, has only one narrative path and one ending. Understanding this relationship between freedom and restriction requires a deeper look at each game’s mechanics and choices.

*The Last of Us* focuses primarily on stealth and combat. Since the world of the game is somewhat post-apocalyptic, the limitations inherent to a collapsed society infuse almost all of the play. Joel (and, later in the game, Ellie for a brief period of time) may only equip up to four active pieces of equipment: one small fire arm, one large fire arm, a throwable object, and a health kit to replenish lost health. Players can scavenge objects from the world such as gauze and scissor blades which they can use with the game’s crafting system to make new weapons such as Molotov cocktails, curatives, or to outfit melee weapons like baseball bats with blades to inflict more damage a limited number of times. These combat choices are largely statistical in nature. A baseball bat, for example, on its own has nine uses before breaking. If modified with up to three blades and the requisite binding items, a maximum of three of those nine hits will instantly kill an enemy. Should the player choose to conserve the blades for something else, the bat still
provides a lesser amount of damage in addition to stunning enemies, leaving them vulnerable for other weapons. Melee attacks, though weaker, are safer in many instances. Guns make noise, which attract infected and regular humans alike—another statistical value the player may choose to employ (in this case, the relationship between the numerical values of sound carrying when weighed against the detection range of an enemy). Players can also choose to statistically upgrade Joel himself through the use of scavenged pills and medicines scattered throughout the game world. Joel’s potential upgrades include maximum health, the speed of crafting items, the speed of using health kits, weapon stability when aiming, the use of a shiv to escape the Clicker enemies that normally immediately kill Joel upon contact, and increasing the sonar-like listen mode distance. Players can also improve the durability and effectiveness of crafted items by finding training manuals strewn across the world.

The choices in *The Last of Us* on the mechanical level lie primarily within the statistical sphere. As is often the case with action games, *The Last of Us* presents a relatively small number of interactive choices in favor of abstracting action. Crafting all types of items involves the same process: having the requisite ingredients and instructing the game to craft with a button press. While each gun has a different range, spread, and damage, firing and aiming is uniform, requiring the player only to aim with the joystick and press the fire button. Melee is likewise simple regardless of possessing a weapon or simply using fists. Stealth is primarily a matter of staying out of the line of sight of enemies, making no noise by moving slowly—a statistical variation of spatial choice—and, if the need arises, using low-noise stealth attacks or throwing objects to distract aggressors. The consequences forming the core of the mechanical agency of the world effectively come in three formats: stealth with combat, stealth without combat, and
pure combat. A player’s subsequent agentic relationship with the game is thus defined by the ratio of stealth to combat he chooses to employ.

*Heavy Rain* uses no such detailed statistical systems. In fact, there is virtually no similarity between the gameplay of these two games beyond the abstraction of actions to button presses. All action in *Heavy Rain* is classified as Quick Time Events (QTEs). QTEs happen normally during scripted scenes in games and prompt the player to press a button within a small and invisible timing window to successfully complete an action. Failure to press the button during the window may lead to the player character taking damage, losing out on a particular opportunity, or even dying. Many previous games have utilized QTEs to supplement their normal play with actions that might otherwise require extra programming and animation resources. *Resident Evil IV*, for instance—a survival horror game involving parasites much in the vein of *The Last of Us*—pits its main character Leon against a villainous mercenary named Krauser. Much like *The Last of Us*, *Resident Evil IV*’s primary means of combat utilized firearms, but the fight with Krauser uses knives. Rather than program an entire set of animations, abilities, and weapons to justify the knife fight, Capcom instead scripted a cinematic sequence that prompts the player to press buttons in the aforementioned fashion. Successfully pressing the button progresses the sequence to the next animation, while failing results in death and having to restart the fight. *The Last of Us* has its own QTEs, such as an encounter where a bandit holds Joel under water and the player must fight back by pressing button prompts until Ellie shoots the enemy. Much more complex configurations of these QTEs make up the entirety of *Heavy Rain*’s gameplay.
All interaction in *Heavy Rain* involves engaging with the physical controller in multiple ways to execute an action. At the beginning of the game, before any of the tragedy occurs, Ethan can set the table before his son’s birthday party. To set the table involves getting plates out of a cupboard by approaching it, at which point a down arrow appears on the screen. Pressing down on the joystick makes Ethan kneel and grab the handle of the cupboard door. A right arrow then appears. Pushing right on the joystick opens the door. These small lessons in playing the game demonstrate a metaphorical relationship between the controller and the actions on screen that gradually grows more difficult. Moving the plates across the table just moments later involves not only pushing the joystick laterally in one direction, but then moving it in an arc immediately afterward. Further into the game while Jayden investigates a crime scene, he moves down a muddy hill. Multiple button prompts pop up in sequence on the screen and each must be held down as the next one appears. In one of the trials the Origami Killer sets forth, Ethan has to drive into oncoming traffic, eventually leading to his car flipping over. Ethan is upside down in the car, so the player must realize that the controller prompts are also depicted upside down as a result.

From a design perspective, an entire game built upon QTEs poses a potential problem: the game appears to have no play element in any detailed sense. The mechanical taxonomic choice options seem small. Spatially the player can move around, so there is little difference there between *Heavy Rain* and any other similar game. Interactively, however, the only mode of play appears to be that of pushing arbitrary buttons, and in terms of statistical choice there is almost no interaction. The player does not control the velocity of the car that Ethan has to drive, for instance, and even if it were under player control, the scripted nature of the game would only
allow small deviations. The simplistic level of control does not, however, impact the agency generated by the game because of the manner in which it represents actions. In *The Last of Us*, consequences for first order actions are entirely restricted to first order consequences; upgrading a shiv means surviving combat encounters more easily due to the shiv acting as a mechanical counter to certain types of enemies. This type of direct relationship between choice and consequence is common among games, but segregates where players might feel their impact in the game world. *Heavy Rain*, on the other hand, uses its first order choices to directly impact higher order consequences.

**Narrative and Agency**

The largest draw to play *Heavy Rain* comes from the multiple variations in how the narrative plays out. Each of the four characters has histories that establish their roles in the game and goals based on those histories, but once the game begins, how those stories unfold is chiefly up to the player. As previously mentioned, Quantic Dream exercises the control of scripting all possible narrative sequences, so there is not absolute freedom; true procedural generation of narrative is outside the scope of current technology, and also outside of the scope of this research. Such limitations are not bad, however. Maintaining some degree of restraint the permutations of story events helps to prevent what Jesse Schell calls the “combinatorial explosion” (301) where every subsequent set of choices creates an even larger number of outcomes. In controlled settings, multiple choices can work, but they grow exponentially out of control. Two scenes with three choices each result in nine different permutations, each of which
requires some form of logical flow in their narrative connections. Adding one more scene, again with three choices, results in 27 separate possible endings. As Schell says:

> to craft a story with twenty endings and one beginning that is the perfect beginning for each of the twenty is challenging . . . as a result, most interactive stories with many branching paths end up feeling kind of watery, weak, and disconnected (301)

*Heavy Rain* certainly has multiple possible endings, but the defined paths of each character coupled with taxonomic choices that are linked to different tiers of consequence help to avoid an overwhelming experience.

As mentioned in the previous section, actions in *Heavy Rain* come entirely in the form of QTEs which take on no specific form as *The Last of Us* might with shooting or sneaking.

Pressing the R1 button on a Playstation controller in *Heavy Rain* might just as easily fire a gun, remove sunglasses, or climb depending on the context of the situation; in *The Last of Us*, R1 will only fire a gun, reload the gun if empty, or throw a held item. These abstracted actions in *Heavy Rain* prevent the player from ever growing too accustomed to any one control scheme. In precluding such a rote understanding of the system, the game is, in turn, free to use the controls to represent multiple different actions. This construction of choice hearkens back to Chris Crawford’s reference to interactions as verbs (Crawford 191), only instead of each verb taking on a unique form, it manifests contextually via user input. Some might call such a construct lazy design, but in principle it is not so different from the human body. A finger only has three points of articulation, a more sensitive collection of nerves at the finger tip, a nail, and a hard bone structure. A straightened finger can scratch something with the nail, press something thanks to its rigidity, hold down a barre chord on a guitar, detect whether an object is too hot or too cold to
touch, and a host of other actions and perceptions. The act of straightening the finger in itself is simple, but creates different effects and meanings by the context in which it takes place. So, too, is the act of pushing a button simple, and in refusing to assign one specific meaning to that button press, Cage has allowed for narrative interactions to morph fluidly throughout gameplay.

The lack of specificity in the first order taxonomic choice allows *Heavy Rain* to immediately produce third order consequences. In *The Last of Us*, the attachment of statistical outcomes to interactive choices cements mechanical systems into the game. For a bullet to inflict variable amounts of damage, an entire combat system must exist. Damage indicates the need for health, which leads to alterations in difficulty by increasing enemy health or damage. The more specific the system, the more depth it can offer within itself, but it likewise foregoes greater breadth. *Heavy Rain* treats its choices as matters of success or failure and, much as in real life, there is no standardized meter by which a character lives or dies visible to the player. All the playable characters can die given the proper circumstances, but each death comes as the result of direct action. In one of Jayden’s final sequences, he uses his augmented reality device in spite of the increasing severity of the neurological side effects to reveal Shelby as the killer. The device can, in this segment, take its final toll, killing Jayden if the player does not find all of the clues in Jayden’s evidence collection. Ethan can die near the end of the game at the warehouse where Shelby has imprisoned his son. If Madison has not arrived at the warehouse, Ethan will be shot by the police due to the misunderstanding that Ethan is the culprit in the crime. Narrative consequences in *Heavy Rain* are not exclusively fatal, though death is a thematic focus of the game and as such plays in to many permutations of the story. If death were the sole major consequence, the variety of experiences the game provides would be far smaller. Instead, *Heavy*
Rain heavily utilizes its malleability of mechanical interaction to generate large numbers of implicit choices and consequences.

The trials the Origami Killer sets forth for Ethan grow progressively more difficult. Successfully completing each trial awards another clue to the location of Shaun, so the story incentivizes completion for the sake of achieving a hopefully positive ending. The first trial is simply to drive five miles in five minutes directly into oncoming traffic, and the second involves navigation through broken glass and electricity in small hallways. The third trial escalates the emotional strain by requiring Ethan to cut off one of his own fingers within five minutes of being challenged using whatever tools he can find in an abandoned apartment. The fourth trial requires Ethan to kill another man who is a drug dealer, but also a father, and finally the fifth trial forces Ethan to drink a phial of poison that will give him just enough time to find Shaun and save him before dying. The escalation of the trials moves from harrowing physical danger to psychologically, ethically challenging decisions in order to challenge the player’s willingness to save an innocent life. For this escalation to matter, there must be consequences to all variations of decisions or the story would otherwise become obviously deterministic. Ethan can, in fact, fail all of the trials, survive the failure, and still save his son provided the player has moved through Madison’s story in the correct way. The game never reveals this possibility to the player, however. Without any outside influence, the player can only assume the nature of a consequence based on the context, which is the core principle behind implicit decisions.

The difficulty in foreseeing consequence is deliberate. Many games that promise multiple narrative paths and extensive ownership of the story rely on dialogue choices or quest completion to determine narrative paths. The Mass Effect series, the Witcher series, older
Dungeons & Dragons based RPGs like *Neverwinter Nights* or *Baldur’s Gate*, *The Elder Scrolls* series, and many other RPGs employ formalized systems that communicate completion of key events to the player. *Mass Effect’s* renegade-paragon system provides red and blue color-coded dialogue options that indicate response type. A player selecting a red option knows not only that the renegade option will be more socially subversive, but that there will additionally be a systemic change. In *Mass Effect 2*, becoming increasingly renegade alters the main character Shepard’s appearance, makes intimidation more successful in conversation, and can violently interrupt dialogue to initiate combat. In one of the most well-known examples, a reporter confronts Shepard in all three games with baiting, tabloid-style questions. The renegade response in all three situations leads to Shepard punching the reporter (in the third game, if a player has transferred data from the previous two, the reporter will attempt to duck the punch, initiating a counter punch QTE).

Systems such as this give players the freedom to direct actions with more knowledge than they would otherwise have in a real scenario, but this often comes at the expense of knowing the choice exists. At the end of *Mass Effect 3*, the game presents the player with four options: merge organic and synthetic life together, eliminate all synthetic life, take control of synthetic life at the expense of its sentience, or walk away. These choices are similarly presented in a color-coded fashion in the form of columns of light the player approaches, essentially choosing which variation of the ending cinematic the game will play. Knowing the choice exists in this fashion is inorganic, and also puts a burden on the developer to produce an immediate consequence to the choice. This problem is one second-order choices face in general in terms of being engineered
representations of real-world decisions. There are no prompts, color-coding, or influence meters in real life, and the consequences of choices are often far more long-term.

Dialogue trees face similar issues. Sometimes dialogue trees overlap obviously with other systems such as with the color-coding in *Mass Effect*, but this is not always the case. In the *Dragon Age* games, a wheel of different responses appears for the player to choose in conversation. Different response types trigger an invisible relationship system whereby the characters who join the player in the journey grow more or less attached to the player’s avatar. The dwarven rogue Varric, for instance, prefers dialogue choices that defer to him or that demand payment in advance of tasks. The elf Fenris prefers blunt, honest discussion, as dislikes any comments that favor magic wielders. For a system like this to work efficiently, however, there must be clarity in the dialogue; the text visible in the selection wheel must mirror the response accurately. Limited space on the screen, however, prevents players from seeing the entirety of a response, especially when characters are fully voice-acted. Paraphrasing in *Dragon Age: Inquisition* often leads to a disparity between what the player chooses from the wheel and how the dialogue actually manifests.

When the character Cassandra asks the player if she is ready to close a magical breach in reality at the beginning of the game, one of the responses is, “Just tell me what to do.” This response looks straight-forward, perhaps indicating a lack of plan or understanding on the player’s part. Deferral to Cassandra’s knowledge of the situation would, under this assumption, make sense. The actual voiced response that plays when selecting this options is, “I’m assuming you have a plan to get me up there?” in a somewhat condescending vocal tone—a complete deviation from the way the text reads. Such disparity leads to uncertain expectations of what sort
of control or consequence a player can expect, especially when considering the aforementioned relationship systems that hinge on knowing the tone of a response. If Varric likes sarcastic humor, a player needs to know a response will definitely present sarcastically. Again we see the problem that second order systems present: in representing choices by exposing the system to the player, the player can understand the system and be limited by it, or even potentially exploit it. Of note, I do not mean by this line of thought to say that second order choices are bad; merely that the fidelity of their representation in comparison to real life is lacking. Thus, if developers wish to approximate the natural occurrence of decision-making, they must err away from the second order.

*Heavy Rain* leverages implicit decision making, as previously mentioned, in its important story moments, but it also does so in lesser ways that still provide agentic consequence and therefore a unique play experience to each individual player. In the trial where Ethan must remove a finger within five minutes, for instance, players have a variety of gruesome options. By investigating the apartment where the trial takes place, players can find a knife, a saw, a hatchet, scissors, pliers, a piece of wood, disinfectant, whiskey, and a steel rod, all of which can play some part in removing the finger. Drinking enough whiskey blurs the screen and lessens Ethan’s screaming (indicating less pain), Ethan can bite down on the wood to additionally alleviate pain, and heating the rod or using the disinfectant will treat the wound. Each tool provides slightly different outcomes to the amputation, and the saw in particular may require an extra action to complete the task. None of these variants change the final outcome of the trial; the player either removes the finger, or does not.
The agency of the scenario is in the player’s capacity to assess the situation and act in many different ways to solve its outcome based on preconceived notions of human resilience, anatomy, psychology, media representation of horrific events, and a host of other factors. A player who believes in tough stoicism might reach for the nearest item—the saw—and remove the finger within moments of initiating the trial. Someone more medically minded might seek out the treatment options first, and yet another player might simply look for the most humane tool. Of course the rebellious player might reject the notion of the trials altogether, hoping for some other avenue, but the game offers no indication that this might be the case. Glaring strokes of unrealistic luck are not assured, and in fact the only way for a player to save Shaun should Ethan reject the trials is to guide another character to discover the warehouse prison. The narrative value in these possibilities is ultimately not that a player takes the ‘correct’ path, but rather has a unique experience as a result of engaging in implicit decision making. The decision making and consequences operating in the abstracted system affords players the luxury of engaging in natural decision making processes within every scenario. The journey and the player’s ability to own it is, effectively, the point of such a system.

Cage has consequently obfuscated victory in the game. By traditional conventions of good versus evil, Shelby should lose, but there exists a possibility in the permutations of the game’s ending where Shelby wins and never answers for his crime. Shelby can also escape the law, but not the wrath of one of his victim’s mothers. There are happy endings that also bear sad under-pinnings. Ethan may go to jail, but later be exonerated, giving him the chance to mend his relationship with his former wife Grace should Shaun survive. Ethan might also end up with Madison instead, and the two of them create a new family with Shaun, though the game gives no
hint to Grace’s fate. Jayden can succumb to his addiction depending on failure to identify Shelby, but he can likewise resign from the FBI to live normally, or become a hero. The mixture of good and bad in so many permutations of endings more closely replicates the grey nature of real life where losses and gains are not so easily defined as purely positive and negative. Extensive use of implicit choice provides this more accurate representation of this reality.

_The Last of Us_, in contrast, leverages its linearity to not only drive home its themes and make the player feel narratively powerless, but to make the specific point that the player and Joel are not the same. _Heavy Rain_’s heavy utilization of choice avenues and differing experiences come from its philosophy of delivering a unique experience to each player; the power of _The Last of Us_ comes from the fact that there is only one experience, but that players have learned to expect control in moral situations. In this regard, the expectation of agency in moral video game scenarios is as much Naughty Dog’s emotional weapon as are strongly written dialogue and mature character interactions.

The game begins non-conventionally. A brief scene establishes Joel as a struggling and exhausted contractor as he arrives home late from work on his birthday. His daughter, Sarah, awakens on the couch to give him a watch as a present. It is quickly apparent that it is only the two of them living in the house, but that they have a loving and understanding relationship. Joel carries Sarah up to bed, where she later wakes up to a panicked phone call from her uncle. The call cuts off, and the player takes control of Sarah, not Joel. The player can move Sarah through house, eventually finding that Joel is gone and something outside is amiss. Sarah’s movement speed does not change at this point, but her body animations become defensive. She wraps her arms around herself, shoulders tensed as she leans slightly forward. Joel bursts through a
downstairs door being chased by an overly aggressive neighbor—a neighbor infected by the cordyceps fungus—who he must kill. He shuffles Sarah outside into his brother Tommy’s car, and the player’s perspective remains locked to Sarah in the back seat. Their planned escape route is backed up with traffic and the infected begin to swarm the stationary targets. Tommy takes the car down an alternate route where they are struck by another vehicle.

Sarah is injured in the accident, and control transfers to Joel while Tommy stays out in front with a gun for defense. The game up to this point provides the player with no means of defense in a swiftly escalating danger zone. For the brief time the player controls Sarah, the only interaction the game allows is investigation of the surrounding area; Sarah is small with a slight frame and has no means of defense. Joel is large and strong, having kicked the window out of the car after the wreck. He wielded the gun to shoot his infected neighbor, but all of the strength he exhibited vanishes in favor of carrying Sarah. There is no power whatsoever in this introductory sequence, only the mechanical responsiveness to the surrounding environment. Joel runs slower than the rest of the panicked crowd due to carrying his daughter. As they run down an alley, an infected person assaults Joel, but his only recourse is a QTE to fend off the attacker long enough for Tommy to remedy the situation. If one of the infected gets to Joel, he dies and the game ends only five minutes in to the story. The two escape down a side path into a hilly area, separated from Tommy. A solider confronts them and receives orders to shoot. The shots superficially wound Joel who rolls down the hill, dropping Sarah in the process. Tommy arrives in time to prevent the soldier from killing Joel, but Sarah does not fare as well. One of the shots pierced her through the stomach, and she dies.
Lack of agency and choice permeate the entire introductory sequence, setting the tone for the rest of the game. Joel is strong and capable, quick to respond when threats arrive, but also cautious; he is not the unflappable heroic brute of an old action movie, but a trudging and tired survivor. When he first walks in the door in the introductory sequence, he is fighting with someone on the phone about potentially losing a job contract, and he jokes to Sarah about paying the mortgage on the house. Joel himself struggles with agency in his own life before the disaster, and even more so after losing his daughter in the struggle against uncontrollable forces. The world twenty years after the outbreak shows just as much restriction. The quarantine zones locked down by military force cannot afford to be lenient lest the fungus spread among the uninfected. Joel has, during this time, done awful things to survive, operating outside the quarantine zones as a smuggler and a bandit. He finds his only means of agency after the fall in preying on others, robbing them of their own agency.

Even after meeting Ellie, who stirs memories of his lost daughter, Joel consistently finds himself robbed of control. He only knows that he is to deliver Ellie to the Fireflies, discovering accidentally that she bears the infection. Though she is immune, the lack of warning to Joel is another manifestation of his own life lacking control. Were Ellie a threat, Joel easily could have fallen due to deliberate withholding of important information. The earlier loss echoes again and again throughout the journey. Tess, Joel’s long-time operating partner, suffers a bite and is infected. She sacrifices herself to allow Ellie and Joel to escape the city. The pair next encounter Bill, who has sequestered himself in an armory filled with weapons and surrounded by traps. Even this survivalist is no stranger to tragedy, though, as he discovers the corpse of his partner Frank while aided Joel and Ellie. Two brothers, Sam and Henry, join Joel and Ellie briefly, but
the fungus also infects Sam. Henry shoots him before killing himself in grief. The inevitability of losing control, of eventually being bitten and succumbing to the infection confronts Joel and Ellie at every turn.

The juxtaposition of powerlessness and the absolute control of the battlefield Joel displays also serves to reinforce the lack of choice the game’s narrative provides. Joel is physically strong, if morally conflicted. Even before the player gains control of him, Joel survived for twenty years off of tricking and subduing others. The mechanical and statistical choices the player can make reinforce Joel’s strength, giving him more health, better aim, better hearing—the player makes Joel a more efficient killer, mechanically, than he might even be narratively. By the end of the game, Joel has the capacity to kill multiples of the worst of the infected creatures who have no human predilection toward mercy; they exist only violently. Joel’s strength becomes the player’s strength since combat is the only means of expressing control over the world. Mid-way through the game, Naughty Dog wrests even this from the player when Joel impales himself on rebar while fleeing from a bandit attack. Oncoming bandits attack, the Joel stuck on the bar. The player must aim at attackers while lying down. Ellie helps Joel up, but his movement is slow, the camera slightly blurred, sound fading in and out. The pace of combat is dictated by how much of a distraction the player can make to allow Ellie to kill the bandits rather than Joel’s formerly trained strength.

The game shifts to winter, and the player no longer controls Joel, but Ellie hunting in the woods. She has none of the increased skills Joel had, nor does she have the inventory of weapons the player might have collected up to this point. All she has is a bow and arrow that the player must, unlike with the guns in the game, aim in an arc as though it were real. Ellie is not weak,
but she is also not Joel. All the power the player has accumulated in the only arena where the game affords any agency vanishes, reduced to its starting values with an entirely new avatar.

Ellie’s chapter confronts her with a tribe of cannibals whose leader, David, harbors sexual feelings toward her. The adult group imprisons her, and though she manages to escape, her final confrontation with David is lopsided. He is more powerful than her. Prior to discovering his perversions, Ellie receives help from David in the form of medicine for Joel and in a confrontation with the infected. He ingratiates himself to her before she realizes the threat he poses, which allows him to more easily take advantage of her. She ultimately kills David before Joel finds her, but the event resonates in her personality throughout the rest of the game. Her slightly sarcastic and often upbeat demeanor diminishes in favor of growing determination to reach the Fireflies. She still loses, however, a part of herself to that event. As though the horror of the infection were not enough, the darkness of humanity also robs agency. The irony here is that Joel used to rob others himself, and he is not finished.

In the final sequence of the game, Joel learns that for Ellie’s immunity to save humanity, she will die. His connection to her over the course of the game has filled the void his daughter’s loss left in him. He finds the idea of losing Ellie to now be equally unacceptable. The Fireflies take Ellie when the pair reaches the facility, but Joel escapes his own captivity, tearing through the guards and inhabitants of the building to find her. When he finally arrives in the operating room, Ellie is unconscious on the table. Joel must kill the doctor preparing to operate on Ellie or he will kill Joel instead; there is no option. The only choice the player has in the room is whether or not to kill the two cowering nurses—a terrible tragedy in isolation, but for a man who has just potentially killed ten to twenty people, hardly unexpected. As Joel escapes to the parking garage
with Ellie, the leader of the Fireflies, Marlene, confronts Joel one last time to try and convince him to leave Ellie behind. Joel, out of the player’s control, shoots her without a second thought. After putting the still unconscious Ellie in the car, he returns to finish a pleading Marlene off, reasoning that the Fireflies would just come after Ellie if Marlene lived. The player’s impact on the world in this final sequence has no weight on the fate of the world, or the fate of Joel, Ellie, and Marlene.

Later, Joel and Ellie hike through the wilderness and Ellie reveals that, when she was first bitten, she was not alone, and she watched her friend Riley succumb to the infection. She emotionally trails off reminiscing about all the people lost to their journey. Joel responds that, in a ruined world, people have to keep finding something to fight for to keep going. Ellie cuts him off, demanding to know if his recounting of the Fireflies incident was true, indicating that he never revealed to Ellie the nature of the incident. He swears, she slowly accepts his word, and the game ends. Many games provide good and bad choices at their finales that, though sometimes incongruous with the rest of a game, provide a sense of closure and ownership over the outcome of the game’s events. *The Last of Us* is not the player’s story; it is Joel’s story, and Joel commits his final theft of agency from both Ellie and the player. The power of the final moments of the game is in the denial it presents. A choice to govern the consequences of Joel’s actions would neither have fit his character nor created a thematically coherent conclusion. Joel tells Ellie that people have to keep finding things for which to fight. This concept has been at Joel’s core ever since the loss of his daughter. Saving Ellie even if it condemns the world is the one true moment of agency in the game, and only Joel has it because Joel and the player are deliberately separate.
entities. The player’s helplessness to direct the course of events is the same as Ellie’s helplessness, and like Ellie, the player can only accept Joel’s version of reality.
CHAPTER 7
IDENTITY CASE STUDY: SKYRIM AND DARK SOULS

If choice and consequence create agency in a space, then by the identity model posed in this research, players should develop an identity that internalizes the information they process from a game world. The identity relationship between person, player, and character acts as a guide from the moment a player chooses to engage with a digital game. No game experience exists in a vacuum, however. Players at this point in time have access to hundreds of games via multiple platforms. According to the Electronic Software Association’s 2016 annual report on the video game industry, 63% of United States households contain at least one person who plays games more than three hours a week. Forty eight percent of households own a dedicated gaming console, and people spent 16.5 billion dollars on gaming software. People have consequently been exposed to and potentially incorporated information from many game types and other gamers to form pieces of their external identities, components of which will transfer to the bridge identity of the player.

Developers can and do utilize the modern fluidity of these identities to create complex scenarios for players. Nuance in the presentation of choice can make games that seem to have much in common provides vastly different experiences in regard to the player’s identity in the game world. The same choice type offerings with adjustments to the way consequences unfold can create different types of identity association between the three identity types, even in settings that appear similar. To examine this, I have chosen to analyze Bethesda Game Studio’s *The Elder Scrolls V: Skyrim* (*Skyrim*) and From Software’s *Dark Souls*. Both games place players in a fantasy world with avatars that occupy the puppet end of the spectrum, and at their outsets each
seems to place a prophesied character into an epic journey. Each game also allows players to experiment in the game world to find the roles that best suit them for solving challenges. In spite of these similarities, the deeper thematic elements and their relationship to identity differ.

Background on the Games

*Skyrim* is, as its full title suggests, the fifth entry in *The Elder Scrolls* series created by Bethesda Game Studios. Players control the main character in the first-person perspective (this is the default, though the player can toggle the camera to display a third-person perspective) in an action roleplaying (ARPG) system. In an ARPG, even though the game has statistics underlying all of the potential actions a player might take, physical dexterity and skill come into play. In *Final Fantasy*, a turn-based RPG, the player selects the ‘attack’ command from a menu, then the game uses a series of randomly generated numbers based on statistical values (usually from equipment or based on character experience level) to determine whether the player hits, and then for how much damage. ARPGs require that the player understand relationships of distance and timing between the character and the enemy in order to ensure an attack lands. Pressing the attack button swings a weapon or launches a spell, but those attacks will only inflict damage if they impact the enemy. At this point the game may still use a number generator to determine how much damage an enemy takes based on the same factors mentioned above, but the execution of the action requires direct interaction between character and enemy.

*Skyrim* takes place in the eponymous land of Skyrim, a northern country on the continent of Tamriel characterized by its frigid climate and combination of mountains, tundra, and forests. The natives of Skyrim, the Nords, often resemble caricatures of Vikings in Scandinavian culture,
wielding axes and dressing in heavy furs. The land is not entirely populated by villages and mead halls—centers of commerce and political power populate different regions of the landscape.

*Skyrim* is an open world game, meaning the player can freely wander to any location provided a quest or character does not bar access. The freedom to do this is a cornerstone of *The Elder Scrolls* series, and *Skyrim* is no exception. Players can own homes in multiple cities, marry characters, encounter multiple long and independent quest lines in addition to the primary narrative, traverse dungeons, and even go so far as to elect to live simply in a small house crafting trinkets or weapons day after day. The degree of openness the game affords is so great that players can still find enjoyment in the game without ever really engaging in the main story itself.

The game takes place during the eruption of civil war between the Stormcloaks, native Nords led by Ulfric Stormcloak, and the Imperial Legion who struggle to keep Skyrim within the Third Empire. The player takes the role of the Dragonborn, though at the start of the game he does not know this is his identity. The Imperial Legion captures the Dragonborn for ambiguous reasons alongside Ulfric Stormcloak in an ambush at a border crossing. The game never hints at why the Dragonborn might have been alongside Ulfric, though Ulfric does not seem to recognize the character. Regardless of the affiliation between the two, the Legion suspects the Dragonborn of conspiring with Ulfric and sentences them both to the chopping block. A dragon—unseen in Skyrim for centuries—swoops in and disrupts the execution, giving the player time to escape. After running, the player is free to begin exploring the game as he chooses.

From Software’s *Dark Souls* is similarly an ARPG that takes place in a medieval fantasy world of monsters and dragons, though it takes a much different approach to its execution.
Skyrim takes place in a high fantasy setting, but the day-to-day interactions of its inhabitants are no more uncommon than those of regular people. Dragons may attack and mad gods may capriciously torment the countryside, but the world itself still lives, breathes, works, loves, and sleeps. Dark Souls is dark fantasy that utilizes the grotesque, implementing elements of horror and psychological frustration as much as it does the tenets of adventure. Characters in the game world are frequently mad or obsessively searching for some unattainable goal, their personalities sometimes friendly, at other times fragmented. The game’s tagline, “Prepare to Die,” aptly describes the experience that From Software built around repetitive death and rebirth cycles to emphasize learning patterns of enemy placement and level design. Every enemy down to the lowliest bug presents a potential threat to the unwary player. Shadowy corners conceal monstrous threats, and when there are none visible, they frequently arise from some carefully placed, unseen location. Even treasure chests will awaken into monsters that will eat the player whole.

Dark Souls begins with an equally faceless character, but the world offers far less of itself to the player narratively. The opening of the game provides the world’s creation legend, telling of the unformed world being a barren land of immortal dragons. The discovery of fire brought conflict, and with conflict came the giants, who took up powerful souls from within the fire to conquer the dragons. The flames are fading in the time period of the game, however, and many now bear a brand—the Darksign—that curses them, changing them into undead creatures awaiting the terminal decay of their minds. The player begins as one of the cursed who has been locked in a ruined asylum. Oscar, an undead close to becoming Hollow, or fully lost to the curse, rescues the player, telling him of a legend in his family of the Chosen Undead. This prophesied
one is foretold to determine the fate of all undead in the land of the Ancient Lords. With Oscar left to his fate, the player makes his way out of the asylum, encountering a giant demon (similarly to *Skyrim* confronting the player with a dragon so early in the game) and ultimately escaping. A giant crow grabs the player and carries him to a shrine in a faraway land with no other instruction but Oscar’s command to ring the Bell of Awakening to determine the fate of the undead.

**Mechanics and Identity**

As I established in the identity chapter of this research, identity is one component of a three-part loop involving choice, the sense of agency derived from the consequences of choice, and the internalization of the results that impact the next choice. In this regard, both *Skyrim* and *Dark Souls* appear on their face to offer the same freedom of statistical choices from their outsets. Both games, as part of their introductory sequences, provide the player with a character creation screen. Though the main characters in both games have important roles to play in the outcome of their respective worlds, they both fall heavily on the puppet end of Worch’s identity spectrum. Both characters have one defining identity placed on them by the developers, but nothing in either game world suggests what a Dragonborn or Chosen Undead should be. Neither character has a personality, a voice (beyond the grunts of combat, in *Dark Souls*’ case, of which there are multiple variants a player can select), or even written lines of independently spoken dialogue (meaning dialogue the character speaks on its own). Both characters are also faceless, raceless, and genderless, meaning that players select every aspect of their backgrounds within what the character creation systems permit.
Skyrim offers the selection of sex, skin tone, weight (which affects the size of the character model), multiple variables in the facial structure, hair, battle paint or tattoos, and a name. Aside from race, none of these choices have any consequences in the game, but they serve the relationship between the real and projected identities. Personal preferences—perhaps of changing self-image or of experiencing different perspectives in the world—from outside the game world drive the approach to character creation. Skyrim does not bar any particular type of race or sex from completing quests, though characters in the world will respond to racial differences. Nords will act friendlier to a fellow northerner, but their age-old rivalry with the Dark Elves makes dialogue more hostile. Races also provide starting bonuses to different skills as well as passive abilities unique to each. Skyrim’s native Nords, for instance, start with higher statistical values in one and two-handed weapon combat, blocking, blacksmithing, mastery of lightweight armor, and speech. They also resist damage from cold sources (ice magic, for instance) and have a shout that causes enemies to flee for 30 seconds. The reptilian Argonians, on the other hand, are natively better at lock picking, sneaking, picking pockets, and certain types of magic. They can also breathe underwater. These starting differences are not relevant for long, though, thanks to the game’s growth system.

All interactive choices in the game have their own experience meter that increases as a player uses a corresponding action. Successfully blocking an enemy attack with a shield will increase the meter for the block skill. Bribing, persuading a character through dialogue, and transactions with merchants increase the speech skill. As skills grow in level, they gain perks that increase their usefulness. High levels of blacksmithing enable players to smith increasingly rare and powerful ore into armaments. Proficient pickpockets more easily pickpocket sleeping
targets, can carry more items without overburdening themselves, and can eventually even steal the armor off of targets’ bodies. Achieving these levels of mastery requires only that the player engage in the interactive choices repeatedly. Every action carries with it a statistical value that adds to the meter, typically with more difficult actions weighted toward higher values of experience. Selling expensive items, for instance, earns more speech skill than inexpensive ones. When the meter fills all the way, the skill gains a level and gains any systemic bonuses associated with that level. The player character also has an overall experience level that increases based on the number of skills that have increased. When the character’s level raises, players can choose to increase health, magicka, (used for casting spells), or stamina (used for sprinting or performing strong attacks). Players also gain a perk point per level which they can use to unlock the aforementioned skill-related perks once their individual skill level is high enough.

The most notable element of this leveling system is that it has no limitations beyond those the player imposes. Even though different races begin with different bonuses, a player can entirely ignore them. A Nord who has no bonuses in magic use can, through constantly using magic, grow into a master spell caster without ever having touched a sword, even though she starts with a bonus to their use. In this fashion, a player character who elects to practice all of the skills the game offers to their maximum potential will have nearly the same statistical relationship to the world as another equally trained character (excepting the racial abilities, though none of these extend to the trainable skills aside from the initial bonuses). Bethesda put little effort into the realism of a virtual identity becoming proficient is so many choice types, thus shifting the greater weight of identity formation onto the projective or real identities. A limitation in mastering real-world practices is time, and while there are always exceptions and people may
master several skills, few would be masters of fighting with axes, swords, and maces in addition to being archers, pickpockets, lock pickers, hagglers, diplomats, blacksmiths, alchemists, and scholars in a single lifetime, especially not in equal measure.

The game’s scale of time makes the gap with realism even larger since players can achieve mastery in a matter of in-game days. Players can fully master some skills within a single day with the right mechanical manipulation. Leveling sneaking, for instance, receives large bonuses for backstabbing enemies. In the temple of the Greybeards—monks who hold the secrets of the plot-relevant dragon’s voice—a player can maximize sneaking within an in-game day. Since the Greybeards are relevant to the plot, they cannot die, giving the player an infinite number of chances to practice backstabbing. If one of the Greybeards is sleeping, he will not be aware of the identity of his assailant and will thus not attack the player while awakening. By exploiting these factors and the artificial intelligence of the non-player characters (NPCs), a player can enter sneaking mode, stab the Greybeard who then awakens, wait for the Greybeard to return to sleeping, and repeat the process. Understanding that such manipulations exist is a fundamental piece of the experience Skyrim offers. The game’s mechanical complexity comes from a wealth of these types of interactions. Players can even go so far as to cause glitches in the game’s systems because of the freedom it allows.

Making potions in Skyrim involves mixing various ingredients together at a lab station. Every ingredient has four different traits. When mixing two ingredients to make a potion, matching two traits will result in a potion that has the matched effect. Two herbs with the ‘restore health’ effect, then, combine to create a potion that restores health. Some effects increase the learned skills for a limited period of time. Players can also enchant equipment to increase
learned skills so long as they wear the enchanted gear. Using these two principles, players can, for instance, create potions that boost alchemy, then drink those potions to temporarily increase alchemy to make even better alchemy-enhancing potions. Once the game hits the maximum amount of growth for these potions, a player can then make enchantment potions that benefit from the high numerical scaling. These potions will boost enchantment, which will allow the player to permanently enchant equipment with multipliers far beyond the game’s normal parameters. Equipment enchanted in this fashion will display damage output and economic values in numbers that can even run off the screen because Bethesda did not design the user interface to handle their length.

![Fig. 7.1. Normal values for a potion in Skyrim](image)

The resultant values for excessive experimentation in this system are not only functionally overpowered, but look visually absurd:
Fig. 7.2. Values for a potion in *Skyrim* through game manipulation

Such system manipulation is far outside of the realm of character identity. Characters in the game world fear death, running from dragon or monster attacks. The game begins with the Imperials leading the player character to the execution block, implying that death has relevance. Only plot-relevant NPCs such as the Greybeards have immortality, though the game never communicates their immortality as narrative. Draining a plot-relevant character’s health to zero only stuns them until health regenerates and the character continues on as though nothing happened (or, in some cases such as with the Greybeards, the NPC becomes permanently aggressive toward the player). The game likewise boasts a basic economy where shopkeepers only hold a limited amount of money and inventory that refreshes roughly every two in-game days. These systems do not match up with a world wherein item values can grow infinitely due to quick manipulation of enchanting, nor do they fit with a character who can become a master of all possible skills in less than a year’s time. Bethesda readily allows players these options, however, suggesting that the game’s core experience may lie largely in utilizing the available
first order choices to fulfill fourth order constructive or exploratory choices. In this case, *Skyrim* is not mechanically about the Dragonborn becoming a master, but rather about the player.

The narrative dressing in *Skyrim* is a convenient setting for the fantastical. Skyrim is a land where assassins, werewolves, dragons, and magic collide regularly. Warriors need swords, wizards need spells, and merchants need stock. In taking the emphasis away from a single, driving narrative arc, Bethesda leaves the player to find his own way in the world based on his own preferences, and the world offers many paths to discover. Even though there is a central plot line, a player who wanders off the suggested path after the initial escape will avoid the first actual fight with a dragon. If that fight does not happen, the rest of the dragons in the world never escape their tombs, the Dragonborn will never absorb the first dragon soul, and no main plot begins. Making a fourth order choice to explore the world further reduces the character identity by eliminating what scripted parts of it exist. From there, all identity growth depends on the player’s proclivities as a person and a gamer. Players can even go so far as to live as peasant workers in their own worlds. The game allows for marriage and purchase of property, so a player might spend day after day paying for a room at the inn as she builds up blacksmithing and speechcraft, selling wares at the local market. Once she has enough money, she can buy a house, establishing a base of operations. When the market runs out of the materials she needs for crafting, she can travel to another town. While it may seem boring by the standards of a game involving dragon hunts and sorcery, playing the role of a normal inhabitant of the land is still within the game’s scope. Even should the player take part in the story line, the quests all depend upon moving to the next plot area and initiating another quest in the chain. With no timer
limiting the main plot, completing the first dragon fight only changes the world’s reaction to the player character, not the things she can do.

In *Skyrim*’s case, the mechanical freedom of the player is paramount. Rather than treating the player, as Worch might suggest, as an individual whose mechanical goals fall in line with what the character wants, Bethesda almost entirely removes the character from the game. The depth of the toy box they provide to players, however, is so deep and integrated into the world’s systems that the game functions successfully. The game is not about aligning character and player motivators, but rather appealing to the curiosity of the real person and the projective identity. While the real identity has the opportunity to choose whether or not to engage with the Dragonborn as a character of limited skill growth, there is no mechanical restriction to otherwise enforce or guide toward such behavior. The mechanical lessons the player identity internalizes come from the success or failure states of direct action—the player fails to pick the lock, so he must improve at the lock picking mini game, or the cost of something is too high, so the player must either gain more money or get better at speechcraft to lower prices. The subsequent identity formation that informs future actions, then, also focuses on the successes of the self rather than of the character.

*Dark Souls* starts similarly to *Skyrim* in the way it presents its mechanical choices. Character creation also includes selection of sex and figure, including many similar facial structure and body type selections to *Skyrim*. *Dark Souls* uses a traditional numerical trait system to govern physical and mental traits, including vitality, endurance, strength, dexterity, resistance, intelligence and others. Higher rankings of a trait indicate the character is better at performing feats that utilize it (strength for physical damage and wearing heavy armor, for instance). Each
trait relates to various different aspects of the combat and interaction in the game. Different weapons have different requirements, so a sword might require strength and have its damage scale to the strength trait, whereas a bow might require dexterity. There is no race selection, but rather the player selects a starting class from warrior, knight, wanderer, thief, bandit, hunter, sorcerer, pyromancer, cleric, or deprived. Each class starts the player with a different statistical template for traits in addition to differing starting equipment. A knight starts with heavier armor and higher vitality making it ideal for players concerned with mitigating damage and survival. A thief starts with high dexterity, lightweight armor, and weapons befitting of its profession, as well as having access to a master key that opens shortcuts in the game world. The deprived notably starts with the highest experience level of the starting classes, completely equal (and thus non-specialized) traits, and only a club and wooden shield. Much like with *Skyrim*, the disposition of the real and projective identities initiate decisions in the character creation space. In *Skyrim*, Bethesda integrates creation into the game world, asking the player to define herself before execution. *Dark Souls* immediately puts the player into a creation screen, divorcing any sense of character establishment from the world itself.

*Dark Souls* also eventually removes the starting class from relevance to identity. Raising levels results from collecting and spending the souls of fallen enemies. When resting at a bonfire, players may spend souls to upgrade the statistical trait of their choosing with each successive level costing more souls. The choice in growth is not as integrated into action as *Skyrim*, and subsequently guides the player to plan and react to circumstances rather than natively growing by acting. If a player wants to inflict higher damage, then he invests in damage-related skills. If an interesting weapon requires high faith to use effectively, then the player might invest in faith.
Boss monsters that prove too challenging for a given play-style or experience level might prompt a player to spend more time gathering souls, or invest in different traits. *Skyrim*’s openness allows players to be and do anything, whereas *Dark Souls* often requires players to understand their frailty in relationship to the game world. Limitation is a core design element of *Dark Souls.* The souls used for growth also act as currency, meaning that purchasing a new weapon or health restorative items can be mutually exclusive with increasing power dependent upon the number of souls a player has. The growing expense for increasing experience levels quickly reaches hundreds of thousands of souls for a single growth point in a trait, so while the game provides cushioning for experimentation in its early stages, it demands more focused decision-making in its later levels.

Caution does not merely have a place in selecting levels, however. In addition to limitation, loss and death are also core themes of *Dark Souls.* Combat is difficult and tense. Enemies move methodically and in patterns, but typically have strength and speed advantages on the player when first encountered. Mimic enemies look like regular treasure chests, but as a player tries to open one, it unfurls into a creature twice a player’s height that flails its long limbs wildly. If a player does not dodge a mimic’s attacks, it can eat him. Enemies hide in shadows or behind environmental objects, waiting for the natural gait of a forward-moving player to run unwittingly past danger and leave himself vulnerable. From Software designed the world to prey on established player identities and the expectations they create. Many action games propel the player forward into enemies or puzzles because the point of the games is to engage in the action. *Skyrim*’s levels are frequently linear, consisting of caves or dungeons that, though winding, ultimately amount to little more than long hallways that loop around to the beginning upon
completion. *Dark Souls* deliberately leverages the reflexes such design has established. A wall in the undead asylum at the beginning of the game, due to its perspective, appears to be nothing more than the side of a hallway. Upon exiting the hall and turning right, undead enemies push barrels down a set of stairs to crush the player. The camera’s perspective purposefully hides the stairs in order to retrain the player. Success requires caution and awareness. Where *Skyrim* allows players to freely explore their identities in the world, *Dark Souls* allows players to choose identities only to rob them away and rebuild them.

Death is the most prominent mechanic the game advertises, going so far as to display “You Died” in large text across the screen at every death as a reminder. Death also acts as one of *Dark Souls*’ identity establishing tools. Upon dying, a player loses all souls in her possession and becomes hollowed—a status that decreases maximum health by half and leaves the character avatar appearing ghoulish and gaunt. The player’s place in the world is precarious, and the world will render the player’s choices meaningless if she is not careful. The identity projected visually onto the avatar vanishes upon death, leaving behind only a husk. Characters low in vitality are much more frail from the loss of health, and players who identify themselves as stout warriors find themselves bereft of their hardiness. The loss of collected souls also poses a lesson to internalize. Players can retrieve their souls should they reach the place of their deaths, but doing so requires potentially passing through the obstacles that killed them. Death returns a player to the last bonfire she visited, and all enemies and traps (with some exceptions) reset to their original states. If a player ignores the caution the game reinforces, she will find herself repeating the same failures over and over again. The relationship between player and game is one of punishment in a sense, but the building of tension through the harrowing risks leads to catharsis.
when completing difficult tasks. In this way, the game provides players with different tools to handle encounters, but the nature of the encounters do not change. *Dark Souls* narrows the player’s capacity to identify as anything other than a combatant in a hostile world.

*Dark Souls* also utilizes other players to aid in identity formation. The game offers a multiplayer component that simultaneously connects players and maintains distance between them. There are two types of player matching: friendly and hostile. Players leave marks on the ground that then appear via the game’s online matchmaking in other worlds. If a player in need of help sees one of these marks, she can summon the helper to her world. The helper cannot communicate in-game in any other way than animated gestures selected from a menu. If the helper dies, or conquers a boss with the host player, he vanishes from the world. While aid is pleasant in a dangerous world, it is also transient. This transience provides opportunities for players to find meaning, however. Players can gain more from multiplayer experiences by joining different factions in the game world, each of which has different purposes. The Warriors of Sunlight dedicate themselves to helping those in need. Their summoning marks appear golden on the ground, as do their avatars when they appear in a host’s world. Rewards in this covenant come from defeating boss enemies, so players who take up the Sunlight mantle learn to help fellow players in spite of the world’s attempts to separate people. Members of the Princess Guard gain access to the only magic in the game that allows for healing other players, similarly affording players the capacity to aid one another. Not all such interactions are positive, however.

Aggressive players can invade worlds without the host’s permission. The goal of an invader is to hunt the host down and kill him, stealing all his souls in the process. Players who take part in this kind of play give in to the nature of the world, becoming monsters similar to
those that already exist. The covenants further modify this behavior. The Dark Wraiths, for instance, allow their members to not only steal souls, but also humanity, an item that reverses the mechanical effects of the hollowing curse. The Gravelord Servants flood enemy worlds with dark phantoms that make the worlds more difficult. The only way to defeat a Gravelord Servant is to find the mark he leaves on the ground and use it to counter-invade his world to defeat him. Embracing this sort of play does not remove the enemy threats from an invading player’s home world, but it appeals to those wishing to compete, to test hunting skills, or to inflict chaos. Indeed, the game’s mechanical difficulty coupled with its other themes of struggle might suggest that disregard for other players’ experiences is the natural identity From Software thinks players will assume. Of course, selecting a positive role in the multiplayer space in the face of such adversity produces an equally strong identity because the struggle is so great.

Mechanically, both Skyrim and Dark Souls begin openly, allowing players to build characters to explore undirected worlds. Skyrim elects to use this absolute freedom to allow players to impose any identity they choose into the game space, effectively making the character more of an identity stimulus rather than a unique identity unto itself. Dark Souls and its similarly open mechanics manages to provide much more distinct identity experiences by forcing the players choices to either embrace the darkness of the world around them, or struggle tirelessly against it.

**Narrative and Identity**

As established in the previous section, neither Dark Souls nor Skyrim create strong character identities in favor of letting character growth rely on player choice. Narratively, both
games likewise leave equally open choice in the participation of narrative elements. Just as with the difference each game creates mechanically, the narratives diverge in their principles even though they share similar foundations. *Skyrim* bolsters its mechanical freedom by also allowing the player to participate in all narrative arcs regardless of the logic of coexistent story lines. The player can be both mechanically and narratively nearly everything in the game. *Dark Souls’* freedom is to only see the surface of the world and its need for survival, or to dive deeper into the obscure corners of the journey to scrounge fragments of the truth.

Even though *Skyrim* casts the player as the Dragonborn—a prophesied person that can absorb the souls of dragons and use the power of their magic voices—there is no need to follow that destiny. As earlier noted, players can bypass the quests that lead to the first dragon soul, thus stopping all NPCs in the world from recognizing the character as special. The capacity to take part in the initial quest never vanishes, but refusing to take part in it only locks out the civil war between Ulfric’s Stormcloak faction and the Imperial Legion. All other major plotlines remain available to the player, effectively nullifying even the core identity the game provides the character. The ability to choose to avoid taking part in the game’s primary narrative anchor turns the avatar entirely into a puppet, leaving its development in the hands of the player. All of the mechanical decisions earlier referenced in regard to taking professions no longer carry the burden of the Dragonborn with them. Rather than a character who knows he is somehow special electing to forge daggers or harvest herbs all day, the character is just a blank slate going through the same actions, taking on the complete identity of a blacksmith or herbalist.

Bethesda additionally dissociates the narrative arcs in the world from one another to facilitate the freedom they give the player. There are five major guilds in the land of Skyrim,
each offering a different narrative line to experience. The College of Winterhold houses Skyrim’s mages, The Dark Brotherhood is a collection of ritualistic assassins, the Thieves Guild deals in stolen goods and shadowy deeds, The Companions are a cadre of fighters taking requests from locals, and the Bards College trains people in the musical arts. As noted earlier in this research, players can complete all of the narratives associated with these groups in addition to unrelated stories scattered across the game world. Gaining entrance to the Dark Brotherhood, for example, involves discovering that a child is attempting to summon an assassin to kill the abusive headmistress of the orphanage in Windhelm. Completion of the child’s task results in the player receiving a missive from the Brotherhood that indicates their awareness of the deed. Upon sleeping, the player awakens in a shack where he can decide to join or attack the Brotherhood and its members. Joining the faction takes the player through a quest chain of betrayal from within the Brotherhood that leaves the faction in shambles. Ultimately the player assassinates the Emperor of Tamriel and becomes the new head of the Brotherhood, tasked with rebuilding it.

Narratively, this arc appears to have consequences that should be mutually exclusive with other narrative arcs. If the player engages in the civil war quest line and sides with the Imperial Legion, then also participates in the Dark Brotherhood quests, he has declared himself both a citizen of the empire loyal enough to fight a war in its name and a killer willing to assassinate his own ruler. The character identities here are at odds, but that is because even on a narrative level all choices lie with the player. The stimulus of completing the quests and earning the rewards they yield take precedence over the sensibility of the outcomes. The game so extremely favors a player-driven identity fueled by completion and exploration that it does not require internal consistency. Were this relationship between the Brotherhood and the Empire the only case of
such disparity, its implementation might seem simply like sloppy design. Every faction, however, exists in this space that idolizes all of the player’s actions. When enrolling in the College of Winterhold, the Dragonborn first undergoes training to learn basic magic skills. Attending the College late in the game might clash with these early lessons due to advanced magic skills learned through use. In a real scenario, the instructors would see the advanced level of skill of a caster and perhaps accommodate such skill in higher classes. The scripted nature of the quest chain, though, forces a player who has established an identity as a powerful wizard to instead accept that the game treats the character as a novice.

The culmination of the Winterhold quests results in magical anomalies overrunning the College thanks to a traitorous mage, Ancano. The player braves the magical storm and infiltrates the College, defeating Ancano and restoring peace to the area. Victory ensures the title of Arch-Mage. Logically, this reward makes little sense. The Arch-Mage is the leader of the College, an educational institution designed to train magic users. The player has done little else besides wield magic combatively throughout the entire, short duration of her studies. While it follows that an Arch-Mage should use magic powerfully, being proficient at battling with spells is not enough of a skillset to run an institution. The narrative reward is not about logical consistency with the world, but in the act of engaging with the arc itself. Since *Skyrim*’s narrative direction allows the player so much freedom in charting her course, Bethesda approaches these major arcs as though they must exist both independently and simultaneously. Since the person and player identities govern the level of achievement almost entirely, it does not matter that the character cannot possibly be the head of the Brotherhood, the head of the College, an Imperial war hero, and a secret werewolf warrior fighting to avenge the fallen members of the Companions all at once.
Once a player completes an arc, there is no further impact on the world. The player can consequently count the arc among the things she, not the Dragonborn, has achieved in the game and then move on to the next experience.

*Dark Souls* provides narrative exploration in a similarly open, but fundamentally different way. There is only one narrative in the *Dark Souls* world, but much of it hides behind lies, interpretation, and fragmented information. Beyond the initial presentation of the game world in the prologue outlining the relationship between fire, the giants, the ancient time of dragons, and the undead curse, the game offers little in the way of narrative direction. The character Oscar who saves the player mentions the identity of the Chosen Undead, implying that the player should pursue that path, but he dies before sharing any further information. Unlike *Skyrim* which definitively assigns its special role to the character by the automatic absorption of dragon souls, *Dark Souls* continually leaves the role of the Chosen Undead ambiguous.

While prophesy may speak of the identity, it seems that becoming Chosen is earned rather than forced upon someone. The Dragonborn has innate powers, while the Chosen Undead must ring the Bells of Awakening and fill a container called the Lordvessel with powerful souls. After filling the Lordvessel, the Chosen must use it to gain access to the First Kiln, where the fire that protects the world from darkness dwindles, to rekindle its flame. The entirety of the Chosen Undead’s identity depends on active engagement with the game’s challenges. Any character in the world, it seems, could receive the title should they pass the required trials. In this regard, From Software aligns the character’s goals with the only path it offers the player to progress. Unlike *Skyrim*, where players can wander off the beaten path, *Dark Souls* bars progress to certain areas unless the player meets entry conditions. There is no access to the First Kiln without filling
the Lordvessel, and there are no large narrative arcs that fundamentally alter the nature of the character’s identity—the character either completes the tasks to become Chosen, or does not. Though players must choose to engage with the primary narrative arc to move forward with the world, they do not necessarily understand the world or become a part of it beyond conquering its challenges. Choosing to engage, however, reveals more of the world’s nature. The Chosen encounters many NPCs throughout the adventure, each with goals of their own. Siegmeyer of Catarina is a jovial if somewhat oblivious knight who frequently turns up in dangerous areas seeking adventure. He is self-reliant, and though appreciative of the player’s constant help, his only point in life is adventure. The debt Siegmeyer feels to the player replaces his need for adventure since he no longer seems to be able to succeed on his own. Helping the player ironically fulfills the last desire Siegmeyer has, and when cursed undead have nothing left, they turn hollow. The next time the player finds Siegmeyer, his dead body rests before his daughter, who has slain him to free him of the hollowing.

Many characters in the game suffer similar fates. Solaire of Astora, a Warrior of the Sun, worships the sun’s light, always seeking a light of his own. If left to his own devices, he will find a helmet that gives off light and he will succumb to his curse. The sorcerer Big Hat Logan hollows once the player buys all of his spells and he finds his way to a library with the greatest magic. Once people fulfill their desires in this world, they no longer have a reason to remain human and sane. The worst characters, murderers and betrayers like Patches, who shoves the player into a pit of monsters, keep their humanity because as long as there are others to undermine, they always have goals. The relationship between immoral deeds and humanity suggests a thematic inversion of good and bad action that echoes the game’s reinforcement of
mechanically invasive play. Even so, the player never has to speak to any of these NPCs to learn the context of the world—he can move through talking to only a few plot-relevant individuals. Choosing to engage in the various subplots in the game infuses an element of despair into the identity of both the character and the player. By the rules of the world, completing the rekindling of the First Kiln may cure the curse, but if it does not, the character will lose himself to insanity. The physical tension *Dark Souls* provides through its mechanics is complemented by the psychological tension of the ambiguity of fate. The potential nihilistic conclusion tempers the victory and catharsis the player feels from successfully navigating mechanical choices.

*Dark Souls* requires the player to earn his understanding of the world’s story. The above interactions all require intense player pursuit since completing major boss fights acts as a trigger for non-player characters moving around the world. These movements can eliminate the possibility for the player to view the story, so players must take great pains to check on their fellow undead. Even more difficult is the discovery of a different perspective on the Chosen Undead’s quest. Normally, players encounter a primordial serpent, Frampt, who informs them of the Lordvessel and the need for powerful souls. Players then move forward and take four souls from powerful foes. Clever and skilled players can defeat one of these foes, The Abyss Watchers, early in the game, long before learning of the Lordvessel. Upon defeating them, the player finds another primordial serpent, Kaathe, who only appears if a player has not already encountered Frampt. Kaathe tells a different story regarding the world. He tells the player that, rather than rekindling the first flame that the giants lit, the Chosen Undead is instead the descendant of the furtive pygmy mentioned briefly in the prologue text, and that he will bring about the age of darkness.
By conventional narrative conflicts of light against dark, a player might first respond to this information as though it were a trick or ethically dubious. *Dark Souls* still requires players to think more critically about the world itself rather than tell them what might be right or wrong. The Chosen Undead appears to be the size of an average human, as are the other undead the player encounters. Bones of giants litter the land, however, and all of the characters associated with the great giants who brought fire to world are far larger than humans, scaling anywhere from roughly fifty to two hundred percent larger. The pygmy who descended with the giants takes only a footnote in the history of the world, seemingly different than them, and perhaps destined for a different existence. The curse might be the result of humans living in a world built by giants, or it might not. Finding Kaathe and learning this secret might change the final sequence of the game when the player enters the First Kiln, defeats the husk of Gwyn, lord of the giants, and has the option to light the fire. From the beginning of the game, people in the world have assumed that lighting the fire in the First Kiln will cure the curse and that darkness is bad. These characters impart that wisdom to the player, but it is all supposition and faith with no substance. A player who has made exploratory choices, mastered mechanical choices, and engaged in the small narrative arcs has won a new understanding of the consequence of lighting the final fire. Neither answer is right outside of the context of how the player chooses to play, but those choices lead to the questions that impact identity formation in the *Dark Souls* world. Through subtly integrating realization of the world into the choices the player makes, From Software empowers both player and character to realize that their identities are defined by those choices.
CHAPTER 8

CASE STUDY: THE STANLEY PARABLE AND SHADOW OF THE COLOSSUS

As both of the previous two case studies have demonstrated, subverting and denying expectations can have a powerful impact on the player’s relationship to the world. Choice is the lynchpin of player experience, governing what the player can do and how developers can create responses to guide players. Given the importance of choice, it follows that subverting a player’s perception of the choices they make by changing the context around those choices can have impact without actually changing the offered choices themselves. I have previously discussed, particularly in regard to identity, that players build expectations not only based on the game world itself, but across all of their game experiences. The examples I use in those examinations hinge on the variety of choices available to the player and the subsequent interpretation of those choices. In the case of my agency examination, I dealt with a scenario that denied agency, but never offered narrative choice to imply it in the first place. For the type of subversion I will be examining in this study, I will focus on choices that do not fundamentally change or grow across the play experience, but whose meanings change as the game progresses.

For this study, I will examine *The Stanley Parable* and *Shadow of the Colossus*. Unlike the games in the previous studies, these two do not greatly oppose or contrast one another. Rather, they both approach the alteration of choice’s impact from different directions. What results from their differentiated approaches is a demonstration of the breadth of experiences games offer due to focus on the thematic role of choice in play. *The Stanley Parable* recontextualizes the nature of protagonists and antagonists by creating a relationship between the player and the narrator that shifts as the player makes choices, while *Shadow of the Colossus*
more passively allows the player to come to the realization that the choices it offers have a different meaning to the world than the player might originally believe.

**Background on the Games**

*Shadow of the Colossus* was released in 2005 by Sony Computer Entertainment Japan’s Team Ico for the Playstation 2. Players control the main character, Wander, from a third person perspective to navigate an ancient and forbidden land as he tries to resurrect Mono, a cursed princess who lost her soul to a sacrifice. The player can roam around the landscape freely, and the only encounters in the game are with the colossi. Colossi are giant beasts, ranging in size from that of a large house to skyscraper-sized beasts that soar through the air. The player must guide Wander up the Colossi’s bodies, finding weak points and attacking them along the way in order to defeat them. There are no random enemies to attack, no experience system or dialogue trees, and no items that drastically alter gameplay. Wander begins the game with an ancient sword, a bow and arrow, his horse Agro whom he can summon with a whistle, a life meter, and a stamina meter. The player can increase life and stamina by finding fruit and lizard tails respectively. Life, as with most games, represents Wander’s survival, which he loses most frequently from falling off of the colossi he must scale. Stamina allows Wander’s grip to last longer as he climbs, enabling longer periods of climbing without the need to rest. These tools are all a player needs to complete the challenges the game presents.

The game begins with Wander arriving with Mono’s lifeless body at a forbidden temple where supposedly the lost souls of the dead can be returned. Shadowy spirits rise from the floor behind Wander, but the light his sword emanates drive them away. A voice calls down through a
skylight in the ceiling, asking Wander of his purpose. The voice is that of Dormin, who has the power to return Mono’s soul to her body. Dormin tasks Wander with destroying the sixteen idols in the temple—each of which is tied to a colossus—though he warns that there is a price to pay. Wander accepts without hesitation, and the player gains control. From here, there are few guide posts to help the player along the way. Dormin sends Wander off with the instructions to hold his sword aloft beneath the sun and follow in the direction the light points—an action which the player controls. Outside the temple, the player finds an empty field dotted with trees, stone outcroppings, and surrounded by high cliffs. Beyond holding up the sword to point toward a colossus, the player may wander freely.

Each colossus encounter is a puzzle with difficulty typically dependent on the size of the creature. Fur and stony armor cover the colossi, acting as grip points for climbing provided the player can determine how to access them. The first colossus is roughly 12 times the height of the player with a weak point on its head, and takes little effort to defeat. Later colossi have more complex behaviors and, due to their size, require different kinds of navigation, including riding Argo to keep up with their speed of movement. Shining the sword’s light onto a colossus will reveal glowing glyph-like weak points which Wander must stab repeatedly. More powerful colossi bear more weak points and thus take more time and effort to conquer. Upon defeating a colossus, a dark energy moves from the corpse into Wander’s body and an idol in the temple shatters. This loop occurs sixteen times, one for each colossus, until the player has defeated them all and the game ends, revealing that Dormin is actually a dark spirit sealed away by the colossi, and the player must deal with the consequences of his release.
The Stanley Parable is arguably less of a game and more of an interactive experience. An argument regarding the definition of games is outside of the scope of this research, but The Stanley Parable does not have a conventional set of rules or a clear goal. The player primarily moves through the main character Stanley’s office with the occasional opportunity to interact with an object. Interaction is not unique between objects, but globally assigned to an interaction command tied to the left mouse button. Few actions actually exist in the game, and those that do including mostly pressing buttons or manipulating doors. The game presents several forks as the player moves through the office building, typically in the form of differing doors or pathways through which the player can move. Once the player chooses a path, the way back shuts. With so little mechanically going on in the levels and no apparent goal, the game might seem pointless but for one key feature: the narrator.

From the outset of play, the narrator dictates background information about Stanley, the office, and the actions Stanley should theoretically take to move through the space. At the first fork in the office, for instance, the narrator states matter-of-factly that Stanley decides to take the left door. The player, of course, has no need to follow the narrator’s direction and may choose to move through the right door, prompting a frustrated response from the narrator. What ensues through the remainder of the experience is a push-and-pull relationship between Stanley/the player and the narrator. The narrator’s responses when annoyed frequently shift between appearing to address Stanley individually and venting irritation toward the player. Assuming the player continues along the path the narrator attempts to present, the narrator remains non-diegetic. The player’s interference with the planned path eventually drives the narrator to go so far as to alter the game entirely (though never introducing additional forms of choice) to impress
upon the player the difficulty arbitrary decision making inflicts on a designer. Consequently, *The Stanley Parable* has several different endings, most of which are accessible in roughly ten to fifteen minutes of play time. Once the player completes a play through, the game resets Stanley to the office in which he begins the game.

**Subversion in Shadow of the Colossus**

As noted in my introduction to the game, *Shadow of the Colossus* does not present the player with a large number of choices. Rather, the challenge comes from repeating the same choices in more complex ways. The first colossus trains the player in simple combinations of attacks and climbing; its size is large, but not so large to prevent interaction on foot. Stabbing it in the heel brings it to its knees, allowing the player to climb up its fur and use its armored plating for platforms. Reaching the weak point on the colossus’ head takes little effort, and the player can dispatch the beast quickly. The second colossus takes more effort, being quadrupedal and immense. Wander is perhaps half the height of one of its hooves. With no apparent way to defeat the creature, the player must spend more time observing. When the creature rears up, weak spots glow on the base of its hooves, but there is no way to use the sword against them. The bow, then, will bring the creature to its knees so the player can begin scaling its body. Traversing the larger creature proves more challenging than the first colossus and involves walking across or climbing completely over armor plating, multiple weak points to attack, and greater risks of failure due to the height from which the player can fall.

Each successive colossus follows a similar pattern, requiring the player to grow more observant and skilled with use of the limited interactions available. The environment frequently
comes into play such as in the third colossus fight where the player must goad the colossus to use smash its stone arm into a platform on the ground. The resulting reverberations break off a chunk of its armor, giving the player the opportunity to run up the arm and climb through the otherwise impassable armor. The fourth colossus requires leaping from stone domes in a field onto its back. Some colossi use speed, others fire energy at Wander or have electrically charged protrusions. Two colossi fly, requiring that they either be grounded or ridden through the air, and one will dive beneath water carrying Wander with it in an attempt to suffocate him. Every task the player executes through these challenges is built upon each previous task, culminating in the defeat of the sixteenth colossus and Dormin’s release. Once Dormin is free, the player goes through the only subversion of mechanical choice the game offers. Dormin possesses Wander’s body, and rather than playing as the agile warrior, the player sees Wander turn into a hulking shadow beast. This happens as a shaman, Emon, and his soldiers arrive at the temple in an attempt to prevent Dormin’s release. Wander grows to the size of smaller colossus, his head reaching the temple’s ceiling. The player can clumsily smash the demon’s fists into the ground in an attempt to assault the soldiers, but Emon eventually casts Wander’s sword into a pool in the heart of the temple, initiating a magical ritual to once again seal away Dormin. The pool pulls in the shadows that compose Dormin’s form, leaving Wander behind. The player regains control and can try to run from the magic, but he is invariably drawn into the pool and locked away.

The lack of freedom within the game’s choice is important because it creates focus on the task of defeating the colossi. With no other paths to pursue, the player only has two true options: move forward with the game’s tasks, or do not play at all. The game’s learning curve and escalation of difficulty in defeating the colossi, while important to a balanced and rewarding
game experience, serve as aligning motivator between Wander and the player. Wander desires to slay the colossi to save Mono, and whether the player engages with the sparse narrative or not, she likewise seeks to slay them to complete the game. Though the player can explore to some degree to find fruit and lizards, the colossi can only die in specific order. Bridges between different areas of the game do not form until certain colossi die, preventing the player from skipping a colossus or moving further than the developers designed. This restriction in itself is a subversion of the apparent openness of the world. As the player moves out of the initial temple on Agro’s back, she finds herself in a vast, open plain apparently open to exploration. Using the sword’s light and searching the environment is the only way to find a colossus, of course, but the scale of the plains might normally suggest freedom such as in *Skyrim*. Any amount of spatial or exploratory decision making invariably leads the player to the first colossus, however. A player disposed toward exploration will never find a path to the next area, so complete exploration eventually leads up a cliff face to confrontation. Searching the land is still necessary, though, for a player to progress, so in that regard the game is not funneling the player down a hallway from boss to boss. Players still get to explore, there is just nothing to find but vistas of the world.

The mechanical twist in the finale likewise subverts player expectation without actually fundamentally changing the interactions of the game. Becoming Dormin only provides an attack action that, while scaled in speed and animation to the size of the demon, functions no differently than swinging the sword. The player has no new choice, only the recontextualization of the same choice. Rather than fighting giants, there are now normal-sized humans fighting Wander as a giant. The cumbersome movements inside the small temple space echo the lumbering motion of the larger colossi the player has previously slain. Soldiers scatter from the blows the player
strikes on the ground in attempts to escape death just as the player previously dodges the swings and charges of colossi. As each colossus falls in the world, they expel portions of Dormin into Wander’s body, ultimately leading to his complete transformation at the end of the game. In a thematic parallel, Emon casts Wander’s sword into the pool, defeating the possessed protagonist and driving Dormin from his body just as Dormin’s fragments left the bodies of the defeated colossi. In a final subversive effort, the developers give control of Wander back to the player in the last moments of his life. Though Emon drives Dormin from Wander’s body, he is still tainted with shadow as the pool draws him in to be sealed. The player can try and run from the vortex, though she can make no headway, constantly flipping and falling backward. In a final act of desperation, she can grab the edge of the pool while dangling over its water, holding on as stamina drains. These actions are all futile, however, since Wander will inevitably fall into the pool and the bridge leading to the temple will collapse behind a fleeing Emon. After an entire game spent honing skill and building strength to outrun, climb, a defeat gigantic enemies, Wander cannot run against the vortex, climb out of the pool, or defeat the small soldiers. He instead becomes, in principle, a colossus to be slain for another’s goals.

Though the subversion of mechanical choice is strong, the narrative presentation is what truly contextualizes the shift in the player’s role across the course of the game. Without the framework of the story, each boss, while challenging, is still just a mechanical obstacle for the player to overcome. The role change at the end of the game would make little sense, and Wander’s inability to escape the sealing ritual would make even less. Knowing from the outset that Wander is electing to undergo a ritual in a forbidden land already suggests that the player might be complicit in something, if not immoral or unethical, dangerous. Dormin’s voice
booming through the temple chamber is ominous, but the language of the game, both written and spoken, is fictional. The voice effect overlaps what sounds like both a male and female voice speaking in unison, but with no frame of the language’s reference, there is no way to discern inflection or meaning in tonality. Players might worry that destroying idols in a temple might be bad, but those idols are tied to giant monsters. Monsters are, in games, usually safe to kill since they represent threats. The colossi in particular are large and alien in form. Though some are humanoid in shape, their limbs are improperly proportioned, their faces (when they have them) are expressionless, bestial with glowing, unblinking eyes:

Fig. 8.1. The third colossus

Others are truly monstrous, completely divorced from any semblance of humanity:

Fig. 8.2. The thirteenth colossus
The action-adventure forebears of *Shadow of the Colossus* such as *The Legend of Zelda*, *Secret of Mana*, or *Legacy of Kain: Soul Reaver* all pit the players against variably sized bosses, many of which involve puzzle elements to defeat. Such games also use the defeat of enemies as a motivator for progression, partially through rewards dropped by enemies, but also by the threat the monsters pose. Not destroying monsters means monsters will destroy the player.

These games also frequently pose dire consequences for getting involved with ancient magic. In *The Legend of Zelda: A Link to the Past*, pulling the Master Sword from its pedestal lifts a magical, foggy curse on the Lost Woods. Drawing the sword—necessary to win the game—also seems to embolden the forces of evil. Kakariko village, once a haven for Link with peaceful citizens, is overrun by evil guards. *Secret of Mana* starts similarly with the main character drawing a rusted sword from a river. Doing so releases the protective seals on the nearby town, allowing monsters to freely enter. Even with these dire consequences, both games require the loss of security to ensure longer-lasting peace. The magical seals are stopgaps serving to stave off threats rather than dealing with them directly. With these scenarios commonly occurring in fantasy action-adventure games, it stands to reason that a seasoned player might not see Dormin’s threats as legitimately dangerous. Even if a player is suspicious, the arc of most games typically carries the hero through a betrayal or twist to a cathartic resolution. Dormin’s vague commentary combined with the historical context of adventure video games and the societal prevalence of saving princesses in fantasy stories leaves little reason for a player to question Wander’s actions. Ambiguity and scarcity of information provides few barriers to moving forward with colossus slaying, even if there is no other option to move forward in the game.
The signs that something is amiss come early in the game. The first colossus will take note of Wander as he approaches, but does not seem to have any violent tendencies, nor does it appear to ravage the land. The colossus carries a club with it, though unless the player navigates Wander in front of it, it seems to have little desire to swing. Hanging on the colossus’ foot and stabbing its ankle hurts it, but it offers little resistance beyond trying to shake Wander off. Even climbing up its back produces little reaction. Only when Wander climbs onto its head and stabs its weak point does it start to rear back in pain as blood shoots out of its wounds. With the final blow struck, the beast collapses to the ground and ejects its fragments of Dormin’s soul, but there is no anger in its movements. Rather, the colossus arches its back and looks upward to the sky, falling forward onto its stomach in agony. The relative passivity the creature shows upon being attacked does not match with the general concept of monsters as evil or predatory entities. The second colossus, while more animalistic, also shows little aggression toward Wander. The colossus bursts through a cliff face due to its sheer size, but the destructive action seems more a consequence of circumstance than of intent. The gap in the cliff face is too small, but the colossus moves forward anyway. It looks down at Wander, but like the first colossus, it walks past him. Even pelting it with a few arrows does not immediately draw its attention, indicating a lack of concern for such a small being.

The first colossus to seemingly pay immediate aggressive attention to the player is the ninth, a turtle-like beast that launches orbs of energy from its mouth. To have eliminated half of the colossi in the game before one immediately initiates assault shifts the context of Wander’s task. Having already subverted the ideas of monsters as bad, instead posing them as indifferent creatures at worst, *Shadow of the Colossus* further indicates that the colossi may now act
defensively as though Wander were truly a threat. Such reaction implies a level of cognition on
the part of the colossi, meaning they might be aware of their presence and purpose, or at least
aware of being alive. The player must now weigh Wander’s efforts to save one life against the
efforts of apparently conscious creatures to save their own. No matter what choice the player
makes ethically about the potential value of a colossus’ life, the game still only affords the two
options of continuation or cessation of play. The need to succeed and conquer, whether for Mono
or victory’s own sake, is no longer protective or righteous. Suddenly the same choices the player
has made time and time again are selfish in nature, but with so much effort sunk into the damage
done, there is little recourse but to continue forward.

The consideration for the lives of the colossi does not stand alone in its importance of
reframing choice given Dormin’s emergence. Even if a player were oblivious to the body
language of the colossi upon their deaths or the increasing hostility they show toward Wander,
the dark energy still infuses itself into Wander after every kill. Dormin’s initial warning
regarding a price appears perhaps closer to Wander’s well-being after each kill. The shadow
infusion is not a peaceful process: long, dark tendrils stream out of the colossus corpse and
violently find their way into Wander’s body, rendering him unconscious. Wander faints after each
of these events and the screen fades to a white light. After later colossus deaths, a female voice—
presumably Mono—mumbles unintelligible, but frightened sounds, or shudders during these
white transitions. Wander’s body appears back at the temple surrounded by the shadowy figures
his sword repelled at the beginning of the game. As the next idol breaks, he awakens and Dormin
gives a vague hint as to the next colossus’ location. The fear in the voice, Dormin’s willingness
to help in spite of the danger, the once-aggressive shadows apparently helping Wander, and the
violence of the event as a whole all point to the nature of Wander’s task as sinister. Myopic perseverance is all Wander has in his quest to save Mono, though, and is subsequently all the developers allow the player to feel should they continue playing.

The end of the journey strips down the last vestiges of humanity from Wander to emphasize the recontextualization of choices. Agro, Wander’s horse, is an instrumental part of the journey. The size of the environments makes travelling on foot tedious and inefficient, so at the least Agro provides a form of easement to play. She is also fundamental to defeating the colossi. As earlier mentioned, some colossi are too fast or too large to handle on foot, so Agro’s speed provides another tool to the player. A titanic sand-worm type of colossus chases Wander around a cavern, for instance, so Agro’s speed is the only thing saving Wander from death. If a colossus hits her, Agro will visibly hobble for a brief time, though she suffers no lasting damage. She follows Wander wherever she is able, even if she cannot help with a fight, and comes running at the sound of his whistle. Agro in this way serves as an emotional centerpiece alongside Mono, who ironically is the more important emotional focus of the story even though we find out nothing about her.

When travelling to the final colossus, Wander must navigate Agro up stone stairs and across a precarious bridge into ruins. The bridge begins to collapse and Agro runs forward, leaping on to a final platform to escape. The platform is no more secure than the bridge, and she bucks Wander off of her back to safety before falling into the gorge below. Wander and the player are, at this moment, the most emotionally invested in the journey they can be. With only one colossus left, the sunken cost of time and sacrifice of the fifteen previous battles seems irreversible. Agro represents a tie to Wander’s humanity. She is a creature who was with him
when he made the decision that his love for Mono was so great that he would give up anything to save her, and she has followed him faithfully as he descends into darkness. Her last act of loyalty, while one of love, also steels his resolve to complete the mission even in spite of the apparent danger. With only Mono left to lose and no way to turn back, the path to ruin seems fated. Choice that once seemed rooted in the hope of salvation twists into a selfish determination.

The coups-de-grace of *Shadow of the Colossus*’ subversion is then the aforementioned transformation of Wander into Dormin. As I mentioned earlier, the mechanical shift is significant in its meaning, but the thematic change accompanying it is truly what subverts the effect of choice. Dormin is a dark being capable of manipulation such as he practiced on Wander. He is so dangerous that his power was split and sealed within the sixteen colossi. Even though players never see Dormin’s past transgressions, his role as a liar and destroyer seem obvious from his actions. Dormin’s focus is power—exactly what Wander sought when coming to the temple. In submitting to Dormin’s lies, Wander not only loses himself, but becomes the story of Dormin’s next rise. The willingness to pay any price to revive Mono turns Wander into a slayer of innocent beasts who endangers the only other creature in his life that shows him loyalty in the process.

The player guides Wander through this without text prompts or dialogue trees, morality systems or numerical representations of relationship. Shifting the thematic landscape around Wander and ultimately shifting his form creates the core of the game experience. The choices offered do not matter because they are tools to use based on their context, mechanical constructs whose final consequence only coalesces across the entirety of a journey.

**Subversion in the Stanley Parable**
The Stanley Parable’s subversion of choice is distinctly different from that of Shadow of the Colossus. As I mentioned at the beginning of this case study, I do not intend to compare and contrast the two games, but rather to use them both as examples of where focusing on the nature of choice can provide important and artistic experiences. Mechanically, The Stanley Parable offers even fewer options than Shadow of the Colossus. The capacity to interact is still fundamental to the game’s message, but the need for complex actions like attacking, climbing, running, or jumping is minimal and would, in fact, be detrimental to some of the game’s scenarios. The game’s structure straddles the line between many of the choice types across the second and third orders of choices. From the moment the player begins guiding Stanley through the office, nearly every decision that the game responds to represents a choice that affects the ending. There are no alternate routes, nor is there any freedom of exploration on the way to any one of the nineteen different ending states, so a single play through of the game is, in a sense, a complex branching choice. Each door a player chooses or instruction he refuses blocks off all other possible opportunities; the game is an experience of constantly forward-moving momentum. Similar to Shadow of Colossus, the mechanical actions of moving through doors are contextualized by the narrative, which in this case the narrator delivers upon every action.

From the beginning of the game, the narrator attempts to guide Stanley down a single ‘correct’ path that follows a set narrative arc. Of course, since this is a digital game, developers have scripted every narrative component within it, but they also attempt to depict the narrator as a conscious character. Narration occurs most frequently whenever the player makes a choice, usually in the form of passing through a door or interacting with a relevant object to the next stage of the story arc. On an initial play session, the narrator describes how the office is oddly
empty of people and Stanley wonders where everyone went, so he decides to wander to the board room in search. The first obvious choice occurs when Stanley passes into a room with two doors where the narrator dictates that Stanley takes the left door. Following directions leads to the board room, which is also empty, so the next stop is Stanley’s boss’ office. Another choice arises at a stairwell where the narrator says to ascend. The executive office is as empty as the rest of the building, but it is here where the narrator first breaks the distinction between himself and the fabric of the game world.

On the back wall of the office is a keypad. The narrator describes Stanley’s observation of the pad while also stating that the combination is 2845, making an emphasized note that there is no way Stanley could possible know this number. The player is free to enter the code, which opens a hidden door in the wall, though the narrator will point out the statistical improbability of guessing a four digit code correctly on the first try. Guessing incorrectly will also eventually open the door for different reasons. The hidden passage leads to a room labeled ‘Mind Control Facility’ where the narrator describes dismay at discovering the entire office is a front for manipulating workers. As the player guides Stanley through the main doors, a series of interactive buttons activates the cylindrical room. Television screens cover the entirety of the walls with each screen showing the office of a different worker. At this point, the narration begins to discuss Stanley’s horror at being controlled and having his freedom robbed by faceless controllers. The obvious irony here is that the player is still controlling Stanley and thus all Stanley’s choices truly belong to someone else even in spite of the story. The ‘correct’ ending happens once the player pushes a button to cut power to the mind control facility. A large blast door opens to reveal a peaceful country path onto which Stanley automatically walks as he,
according to the narrator, finally feels truly happy knowing he is out of the hands of his manipulators.

This arc is, at least according to the narrator, the canonical story arc for the game. The arc hints at many different possibilities for all of the scenarios the player encounters, but the narrator wants Stanley to move through the proper plot line at a particular pace. After the completion of most arcs, as well as from the pause menu, the player has the opportunity to restart from the beginning. Pieces of the game change across multiple play sessions. Even following the canonical arc can yield different results, and begins to show the narrator’s true desires. Rushing to the keypad in the executive office and inputting the code before the narrator has a chance to discuss it irritates him. He mentions Stanley’s rush and its interference with the story, so he makes Stanley wait a few moments to open the door while playing relaxing music. Investigating a broom closet on the way to the executive office prompts the narrator to mention there is nothing of note in the closet. Should the player continue to stay in the closet, the narrator grows annoyed, eventually assuming that the player has died at the computer. He starts to request another player sit down to take control of Stanley. Leaving the room earns a greeting to what the narrator presumes is a new player. Wasting enough time in the closet eventually drives the narrator to board up the door on a fresh restart of the game.

The small results of implicit and exploratory choice form an unconventional picture between the player, Stanley, and the narrator. The narrator appears to recognize that there is a player outside of the machine given the correct in-game circumstances. At others he assumes it is Stanley rebelling through incorrect choices. Discerning between the two is sometimes difficult, but at the heart of every story variation is the narrator’s need to maintain control. Choice is
anathema, but at the same time the element that exposes more of the narrator’s personality. In the mind control facility, there are two buttons: one to shut down power, and the other to activate the machine. Pressing the activation button sends the narrator into a rage where he decries Stanley for trying to skew the direction of the story. After all, Stanley has just discovered that he is the victim of mind control, so his decision to activate the mind control machine is not only contradictory to the confusion the narrator has described, but it ruins the forthcoming victory. The narrator continues the diatribe while altering the story, claiming that the machine cannot be activating without a genetic key. Instead, the facility’s self-destruct mechanism activates. The narrator proceeds to taunt Stanley for his choices, asking him how he will choose to handle his death since he values choice so much. An exit door automatically shuts if the player guides Stanley to it, and the room preceding the power control room contains various buttons and screens that suggest a way to stop the timer. The narrator derides Stanley for attempting to negate the outcome of his choice. There is no escape as the facility explodes and the game restarts.

The relationship between the player and the narrator is one of dynamically shifting roles between a protagonist and antagonist, at least in the context of the game’s fiction. As mentioned, everything the game contains must be scripted in advance, but the nature of the narrator’s interactions suggests he has a will and needs. If a protagonist is a main figure meaning to drive an idea or story forward, then the narrator certainly qualifies. He is, in all situations, attempting to guide Stanley and the player through an established story with philosophical commentary on choice and freedom. He is also an antagonist who pushes back against forward movement at the moment the player deviates from the proper arc. The nuclear explosion scenario is not the only
example of the narrator pushing against the player. If the player goes down the stairs leading to the executive office rather than up, the narrator once again alters the story out of frustration. Stanley enters a paradoxically repeating string of rooms that lead to him questioning his sanity. He will briefly float upward, believing he can fly, and a field of stars appears in the air in the room. The narrator indicates that Stanley may be crazy and that the narration is all a voice in his head. Stanley dies after realizing he is not dreaming, and the shot shifts to Stanley’s body lying on a sidewalk overlooked by a woman named Mariella. She wonders, through the narrator’s telling, what the crazy man must have been thinking as he died. Death is a tool the narrator has no problem using in certain scenarios to punish Stanley’s refusal to obey.

The player also serves a dual role. Player characters in games typically serve to push a story forward in traditional games. No matter what the quest, taking the role of a hero means pursuing it through the opposition of the enemy. Stanley is the basest form of pawn in The Stanley Parable, however, and from the first room of the game it seems that the player and the narrator struggle over him. The player has all the power, but the narrator has a goal. He wants Stanley to move forward, meaning that player choices that act against this notion are in opposition to one form of the story. Players effectively become antagonists to the narrator. If, when going through the right door, the players never redirect their courses back to the executive office, they will end up riding a lift across a warehouse. Rather than the insane anger he exhibits in the mind control facility, the narrator pleads with the player to follow the story he toiled to construct. Dropping off the lift onto a catwalk prompts further frustration and an attempt to bargain. The narrator claims that he wants to build something beautiful, and if that the player will just work with him and trust him, such beauty is possible.
Continuing to deny his requests leads the player to an unfinished orange room where the narrator laments the incomplete game he has been developing. In an exasperated attempt to give the player something different, the narrator spawns a button that, when pressed, resets a picture of a baby moving toward a fire. He tells the player that the game takes four hours. After two real-world hours of doing this, a similar game appears with a picture of a puppy descending toward a vat of piranhas. The player must press two buttons repeatedly for another two hours only to be brought to a white screen with poetic text claiming that Stanley is free to live a human life.

Failing the games draws further ire, and a depressed narrator starts playing two different games around the player: Minecraft and Portal. The Stanley Parable actually loads in areas built from assets from these two games, taking the player even further out of the game world. Antagonism toward the narrator drives him to give up his efforts just as constant antagonism toward a player might also result in ceasing play. In the Minecraft portion of this ending, the narrator builds a simple house out of dirt with a working door—an action normally executed by players. Even if the acts are artificial, the narrator implements ‘new’ game mechanics in the form of the baby/puppy game as well as engaging in player behavior. He now represents outside forces of creation. The player’s choices in this context not only resist the narrator’s goals, but stand for choice manipulations that break away from developer intentions. The game is no longer just about players making good or bad choices, but about a conflict between content creators and consumers.

Perhaps the most impressive subversion of expectations The Stanley Parable offers is its potential subversion of the orders of choice themselves. In an individual play through, no such subversion occurs. In any of the scenarios mentioned above, players make their choices and then
deal only with the subsequent choices afforded them. In the nuclear ending scenario, for instance, there is no way to return to the beginning of the game and go to the warehouse; the only way to get to the mind control facility in the first place is to follow the conventional paths to the executive board room. The branches are mutually exclusive with one another. The game’s focus goes beyond each individual play session, however, and depends on the constant cycling through the different arcs it offers. Even the same arc as I noted earlier can produce variations depending on player action. In this regard, the second and third orders of choice can only, at best describe the processes by which individual branches of choice manifest. In one ending of the game, for instance, the player can sneak out a window in the room adjacent to Stanley’s office. While standing in a pure white field—which might normally indicate a space outside of a game level that has no environments and is not intended for players to enter—the narrator condescends to Stanley about the nature of video game choice and developer anticipation of player behavior. A choice then appears in the space asking if the player is tired of the gag yet. Either answer yields a long monologue from the narrator, but at the heart it is just a binary choice. Most of the choices are binary and implicit in the form of ‘do X’ or ‘do Y’ where X and Y mainly represent taking two different paths, interacting with two different things, or choosing whether or not to interact with an object at all.

Exhausting all possible permutations of game experience is the only real end-scenario for 

*The Stanley Parable*. *Heavy Rain* has a similar premise with its variety of different story variations, but the point of *Heavy Rain* is always to reach the end of the narrative in a way unique to a player’s experience. *The Stanley Parable’s* point is not to win the game, but to comment on the nature of choice in games. Subverting choice allows the game to goad players
into continually investigating new corners and different orders of operation to see just how broad
the experience actually is. So long as there is discussion regarding the nature of choice and its
meaning in games, playing through any variant of *The Stanley Parable* can yield new insight.
The orders of choice, as they move upward, involve developers yielding more control to the
players to dictate their experiences. *The Stanley Parable* subverts this by creating the most
carefully crafted closed system while simultaneously luring players to question everything about
the game with total freedom.

**Subversion of Choice as an Experience**

The former two examples, as I mentioned at the beginning of the study, are not meant to
directly clash or complement one another beyond their capacity to express subversion of choice
as a powerful experiential tool. *Shadow of the Colossus* presents what appears to be an open
environment that is heavily controlled in order to shift the context around the player. *The Stanley
Parable* does the opposite, presenting small environments with many different combinations of
options to change the nature of the player relationship with the system. Both games take an
artistic approach to their use of choice structures, opting to carefully utilize small numbers of
tools to engender larger realizations in players. The emphasis in both games rests heavily on the
first and fourth orders of choice. Their applications of mechanical decisions distract or play off
of preconceived notions of game design. The resultant investment primes players to accept what
they believe to be their tasks in each game. Developers thus find themselves with a platform
from which they can alter the game experience around the players who repeatedly engage, much
as Wander does, in the same choice types before they realize their choices have been subverted, and they are now complicit in a new game experience.
CONCLUSION

While the lack of a hierarchical structure of choice has, in light of the game industry’s lasting success, not impeded development or growth, it has contributed to inconsistency in the discussion of developers and scholars alike. This is not to say that the common languages within each area are inherently flawed; the common languages that have developed within each area serve important functions. Game developers necessarily view their games as constructed objects. Making digital games function requires an understanding of numerical systems and the technical processes of programming. While this understanding is not mutually exclusive with academic thought, it lends itself to speaking more directly about game elements. Higher philosophy that backs a game’s development must eventually give way to straightforward communication of damage numbers, experience levels, jump height, etc. Through this form of discussion, developers assume choice is happening and they focus on the individual systems behind the choices. Academic study also assumes choice must happen for games to exist, but instead turns its view to the ethical, psychological, or sociological outcomes of the choices. Again, there is not mutual exclusivity with statistical data or concrete analysis. Since academic examination comes after the actual development and release of a game, however, scholars have more freedom to explore the theoretical meanings of choice or broad philosophical application. In both cases, the execution of choice is assumed and sits at the foundation of practice.

With so much agreement that choice is the defining characteristic of games, it might seem that there would already be some sort of choice classification, especially given the systemic interest of developers. Rather, all discussion is primarily occupied with the consequences of choice, or whether one choice is balanced against another. Developers looking to create an
experience rely on coming up with ideas that thematically match one another such as giving a player the option to sail a ship in a game about pirates. Growth in game systems stems from such a root idea as developers decide how much control to give a player over perhaps the type of ship, the crew members, reputation on the seas, or any number of hypothetical variables. From this outward growth there are patterns. When beginning this research, I was aware from my own extensive play experience that certain trends in choice offerings appeared repeatedly across multiple games and genres. What appeared to be lacking was any formalized model of the different types of choice delivery available not only to players for engagement, but to developers for implementation. The lack of formalization also impacted the academic world since they necessarily follow the development world in production (i.e. there can be no analysis without a product to analyze). If the development world has no foundation for a discussion beyond the assumption that choice matters, then, at best, the academic world must invent its own model or seek the models of others to apply.

The taxonomy presented in this research is the result of observation of a lifetime of game playing and research. As a tool, this hierarchy could serve as a basis for understanding between the two worlds in regard to how choice affects player experience. For developers, such a tool could serve as a unifying guide for the basic choice systems within a game. The relationship between the differing orders of choice and the amount of freedom the player has within the game space could lend developers insight into what sorts of experiences a player might have. A high degree of fourth-order exploratory choice, for instance, requires a complementary high degree of spatial choice, but not necessarily any relevant amount of statistical or interactive choice. Not every developer would elect to use this system, of course, but it also serves as a useful analytical
tool after the fact. As demonstrated through the case studies as well as the applications of the
taxonomy to the general concepts of identity and agency in games, a researcher can retroactively
apply the taxonomy to determine where consistency in choice offerings breaks down. *Mass
Effect 3*’s ending, for example, caused great controversy because players felt it robbed them of
the outcomes of their choices. In reality, the entire final battle sequence is full of consequences
from three games’ worth of play (the series transfers the results of choices from the previous
game into the next). So many permutations of choice outcomes express implicitly in the world
throughout the final battle in the form of characters living or dying, relationships coming to a
close, and even an entire race of creatures that may or may not arrive to help with the fight. A
single, simple branching choice at the end of the game derails the implicit consequences that
have framed the game’s last few hours, and players felt betrayed. Looking at the consistency of
the taxonomic choices offered helps to explain, at least in part, the concerns players felt at *Mass
Effect 3*’s choice construction.

It is worth noting that this taxonomy is built upon my observations of the types of choice
that present in modern games. As a result, any design biases present in modern game
development will likely find some form of expression through the choice types. My goal was
never to conclude whether a particular design approach is correct or incorrect, but rather to
simply demonstrate that a suitable classification exists of current practices and that it can be
applied across multiple vectors. In that regard, I believe the taxonomy has room for growth
should new design approaches arise. The second through fourth tiers of choice in particular could
grow outward as new organizations of choices offerings come to light, or entirely new genres or
methods of interaction develop. Notably, I do not mean for this taxonomy to be an all-
encompassing template for game creation. I believe it has numerous applications as an analytical and learning tool, but that is not to say that it is perfect. The taxonomy is, at its heart, an observation of patterns of choice that have already occurred in digital game development, making it similar perhaps to Joseph Campbell’s Hero’s Journey cycle. In *The Hero with a Thousand Faces*, Campbell breaks down the plot movements of numerous mythological figures and, similarly to my own research, detects a pattern of events that lead a hero through her call to adventure, her rejection of the call, the mentor guiding her, the tests she faces, and her ultimate triumph and return to the normal world. He states in the epilogue, however, that “there is no final system for interpretation of myths, and there will never be such a thing” (329). Though his model has numerous applications, it does not account for all myths, nor could it hope to foresee the future of storytelling to prophesy its lasting usefulness. Campbell’s model is importantly not a mandate on the formation of story any more than my taxonomy is one for game development. Still, this fact does not preclude the taxonomy’s use in such a fashion just as Campbell’s model has similarly been used to create stories since its inception.

As for the future of this work, I see several avenues to further test its capabilities. In my own personal work, I see the potential to incorporate the knowledge the taxonomy affords into design decisions for independent game development. Though I have mentioned that the taxonomy is not a template, it is useful in understanding a relationship between choice type and consequence. This understanding is a powerful tool, even as simply a framework. Creating a game that invokes the feeling of old arcades might mean looking at multiple arcade action games, assessing the number of choices and choice types they offer, and using those numbers as a starting point for a new game in the same genre. Since my goal with this research is to provide
an academic tool as well as one for the industry, I am further interested in applying the taxonomy to specific qualitative analysis of games. Roleplaying game analysis, for instance, might involve isolating a complex branch of choices, evaluating all of the other choice types within the branch, and assessing such elements as the timing of delivery, typical number of choices within a branch, or other variables that might impact player experience.

This taxonomy could ultimately serve to aid in design of experiences even outside of the game realm. The focus of this research is specifically on video games, but there are numerous scenarios in life designed to give people choices beyond simply the realm of the digital. Educational exercises, interactive art exhibits, architectural spaces, and even simple survey questionnaires are all interactive, requiring thought on the part of the designer to engage the target audience. In my own in-class exercises I use with my students I find that I can apply many of the principles of the taxonomy to my course design. When I want students to learn specific principles such as balancing game numbers or proper grammar, I find that I restrict their activities to mechanical practice. Arcade games similarly restrict activity to mechanical interaction, and subsequently are effective at teaching the player to evaluate actions within the choice-consequence relationship of the game system. Should this taxonomy prove useful in the long-term for analyzing and constructing choice types in games, it may even be possible to apply it more generally in multiple different arenas. For now, however, this model remains restricted to the realm of video games and hopefully provides a common ground to understand more deeply the assumptions we make as creators and researchers alike about choice’s role in the game experience.
BIBLIOGRAPHY


BIOGRAPHICAL SKETCH

Michael Thomas Andreen was born in Wichita Falls, Texas on December 3, 1983. He holds a Bachelor of Arts in English from The University of Texas at Austin and a Master of Fine Arts in Arts and Technology from The University of Texas at Dallas. He is currently a lecturer at The University of Texas at Dallas and teaches courses in video game design and the history of video games.
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Education

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M.F.A. December 2010, The University of Texas at Dallas (800 West Campbell Road, Richardson, TX), Arts and Technology

B.A. May 2007, The University of Texas at Austin (2400 Inner Campus Drive, Austin, TX), English, minor in Math and Business

Employment

Senior Lecturer 2015-17, Arts and Technology, The University of Texas at Dallas (800 West Campbell Road, Richardson, TX)

Adjunct in Game Studies 2014, Arts and Technology, The University of Texas at Dallas (800 West Campbell Road, Richardson, TX)

Teaching Assistant 2011-14, Arts and Technology, The University of Texas at Dallas (800 West Campbell Road, Richardson, TX)

Research Assistant 2009-11, Arts and Technology, The University of Texas at Dallas (800 West Campbell Road, Richardson, TX)

Private Instructor 2007, Math and English, Memorial Private High School (14333 Fern Drive, Houston, TX)

Private Tutor 2007, Math and English
Achievements in Original Investigation:

Publications:


Articles in Refereed Journals:


Invited Presentations:


Original Creative Software Design Contributions:

ZOG: Action oriented submission to the Independent Games Festival
Development Team Lead: Skylar Rudin
Contributions: Music composition, world narrative, motion capture, and voice work
August 2012 – 2013
Available upon request

Rhapsody: An investigation of branching narrative structures based on aspects of musical interpretation
Development Team Lead: Michael Andreen
August 2010 – May 2012
Available upon request

Virtual Assessment Tool for Medical Students: Virtual training simulator to improve pre-med student interaction with patients
Project Lead: Monica Evans
Contributions: Voice work, recording, and editing in both English and Spanish
May 2012 – August 2012
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**Serious Games for Professional Development:** Virtual trainer to improve student outcomes for K-12 teachers  
Project Lead: Monica Evans  
Contributions: Voice work, recording, and editing  
May 2012 – August 2012  
Available upon request

**Puzzle Blitz:** Competitive icon matching puzzle game, Dream.Build.Play 2012 entrant  
Development Team Lead: Michael Wonser  
Contributions: Music composition  
January 2012 – May 2012  
Available upon request

**TILE:** Top-down adventure game with procedurally generated levels  
Project Lead: Monica Evans  
Contribution: Music composition and concept design  
June 2011 – August 2011  
Available upon request

**Best in Show:** A game examining the idea of designer babies and genetic manipulation  
Development Team Lead: Susan Ounekeo  
Contributions: Sound design and audio recording  
February 2011 – May 2011

**Endless Life:** A series of minigames acting as an interpretation of mundane infinite life  
Development Team Lead: Lee Brown  
Contributions: Music composition  
November 2010 – February 2011

**Marching Ever Onward:** An interpretation of the consequences of life-extending technology and medication  
Development Team Lead: Michael Andreen  
August 2010 – November 2010  
Available upon request

**Famished Farm Animal Frenzy:** Hungry Hungry Hippos themed game for the iPad  
Development Team Leads: Jacob Naasz and Jainan Sankalia  
Contributions: Music composition and sound design  
May 2010 – June 2010  
Available upon request

**The Digital Calculus Coach:** Interactive online game intended for supplemental undergraduate calculus training  
Project Lead: Monica Evans
Contributions: Mathematics problem selection and game design
August 2009 – August 2010

Creative Work Contributions:

Little Shop of Horrors: Best of Broadway V production at the University of Texas at Dallas showcasing a fully animated, digital version of the Audrey 2 plant characters
Project Lead: Monica Evans
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Contributions: Voice of Audrey 2, recording, sound editing, video reference
January 2012 – November 2012
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Highest Fidelity: CentralTrak installation
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January – February 2009

Teaching:

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